

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL
RAILROAD AND FINANCIAL NEWSPAPER.

Manufacturers' Record

in
1893

Because of the improved business conditions in the South, due to the advance in cotton, more abundant food crops and the settlement of political issues, the coming year will be a period of unusual activity in every line of Southern industry and commerce. The MANUFACTURERS' RECORD has undergone radical changes during the past year, by which its interest for its readers and the value of its services to advertisers have been materially increased. It occupies a distinct field and has a marked character of its own, which render it unique among trade and technical publications. The practical man who bears the responsibilities of any important industrial establishment, whether in the North or South, can derive distinct benefit from a careful reading of its columns. Any man who desires to keep well posted upon industrial practices and progress can obtain more than four dollars' worth of beneficial information from its pages in any single issue. Four dollars pays for a year's subscription, giving a minimum of 1,000 pages of interesting, instructive and profitable reading matter.

THE FULL TABLE OF CONTENTS WILL BE FOUND ON PAGE 112.

VOL. XXII.
No. 20.

\$4.00 per year.
Single Copy
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Baltimore, December 16, 1892.



THE JAMES SMITH WOOLEN MACHINERY CO.

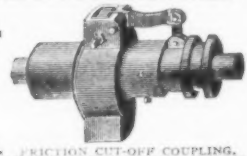
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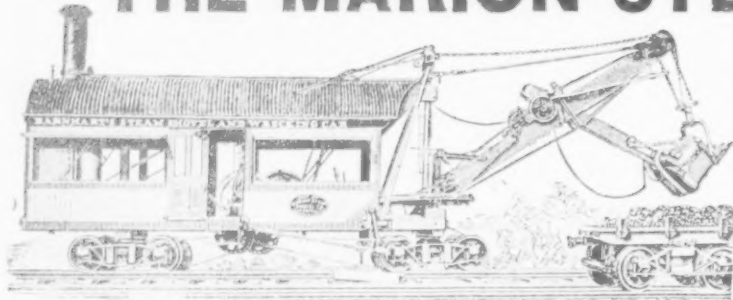
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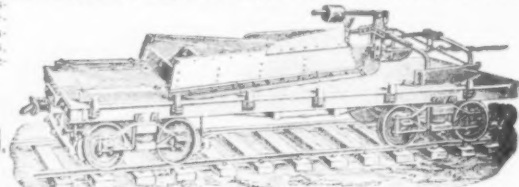
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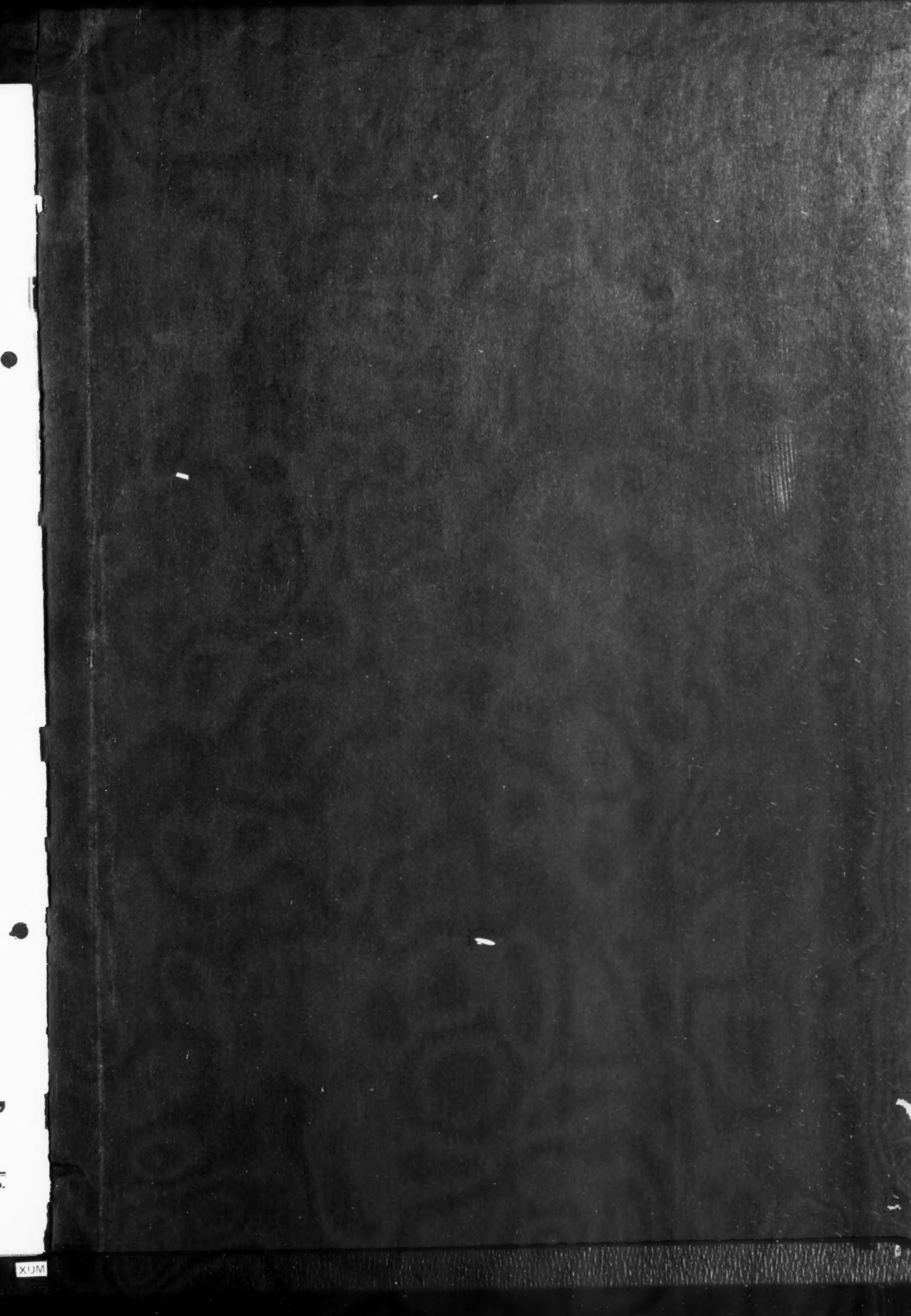
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FOR "ALPHABETICAL INDEX" SEE PAGE 46.

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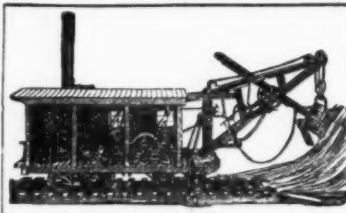
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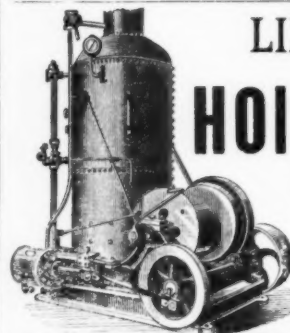


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FOR "ALPHABETICAL INDEX" SEE PAGE 46.

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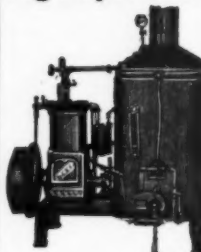
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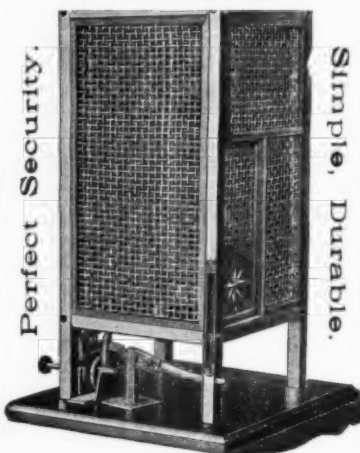
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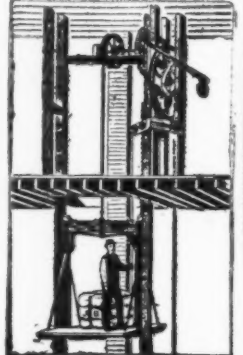
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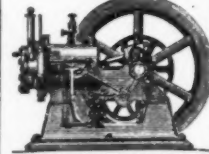
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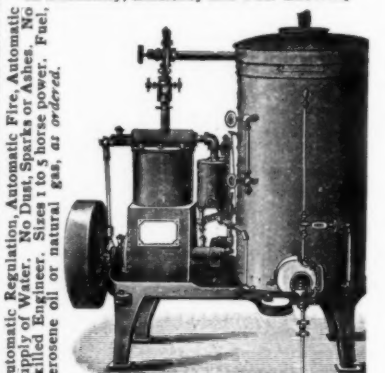
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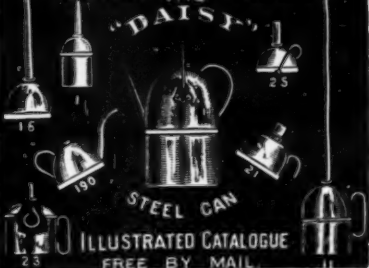
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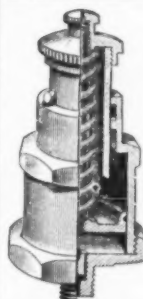
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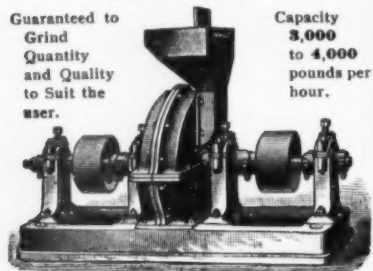
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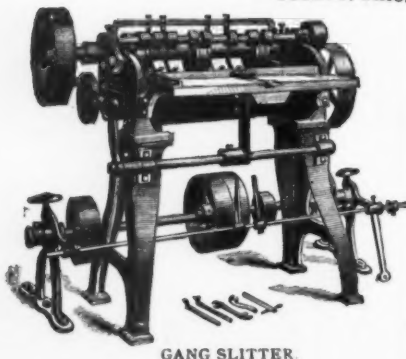
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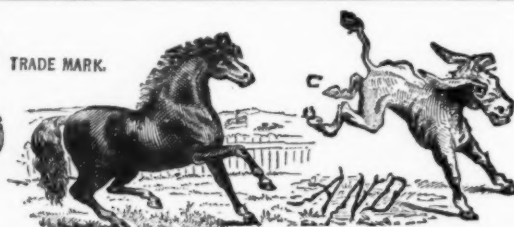
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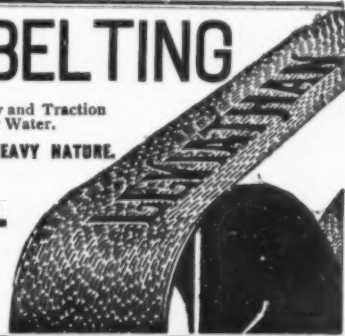
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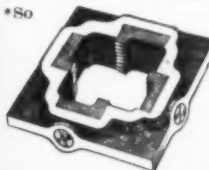
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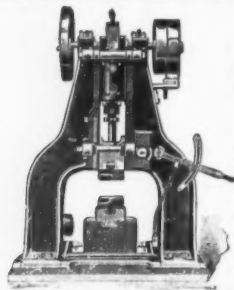
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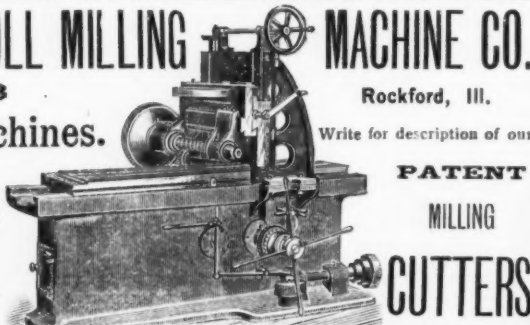
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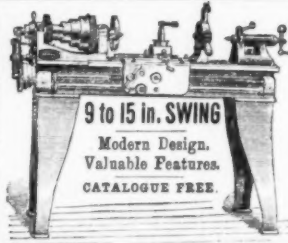
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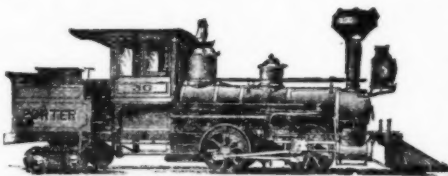
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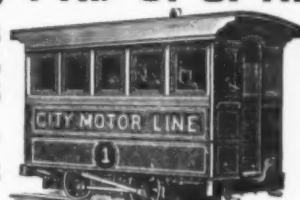
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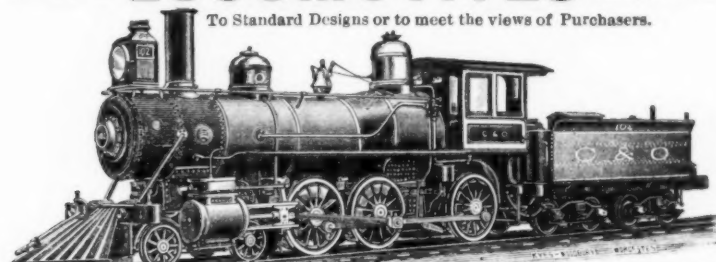


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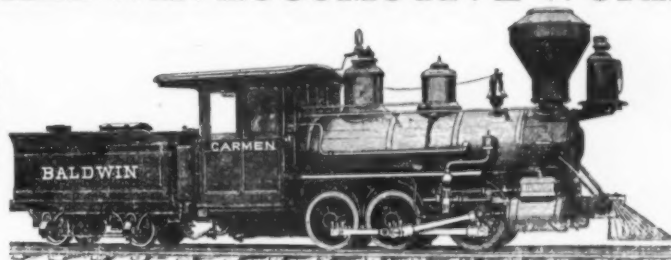
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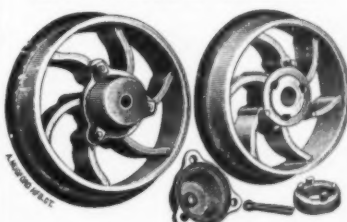
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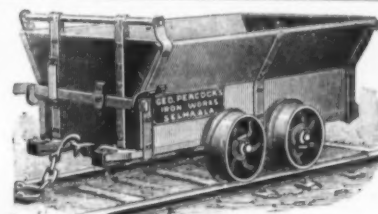
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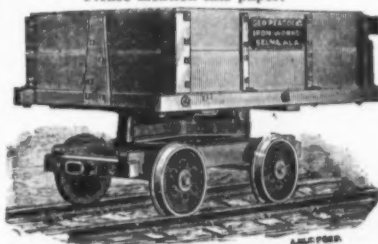
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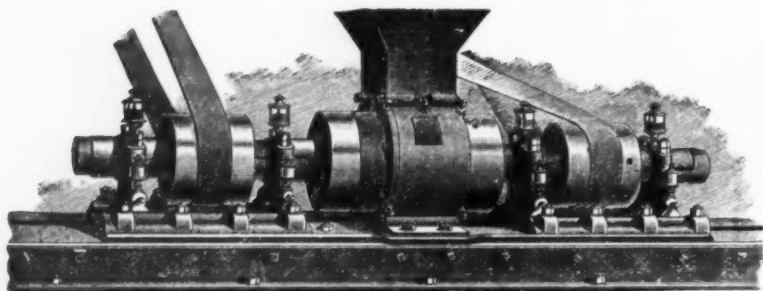
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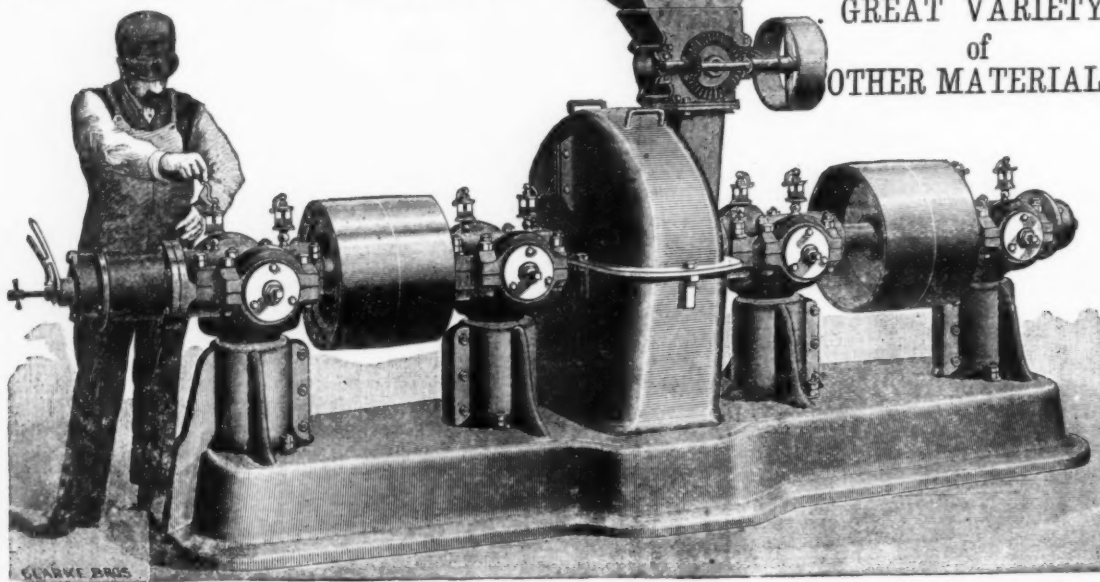
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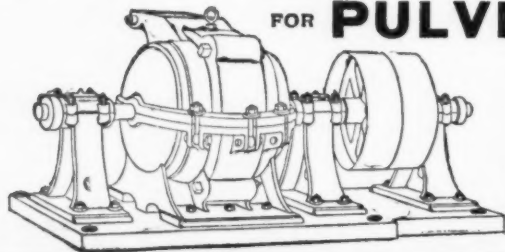


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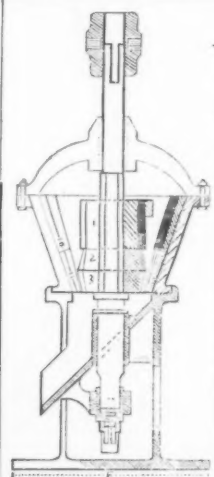
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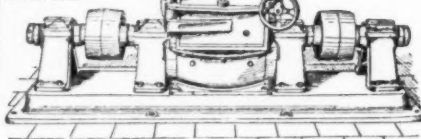
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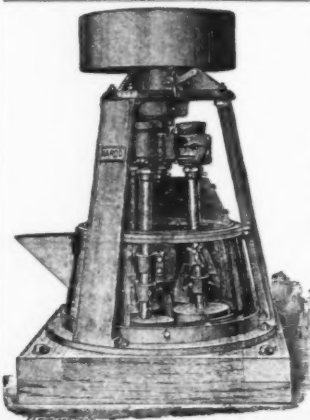
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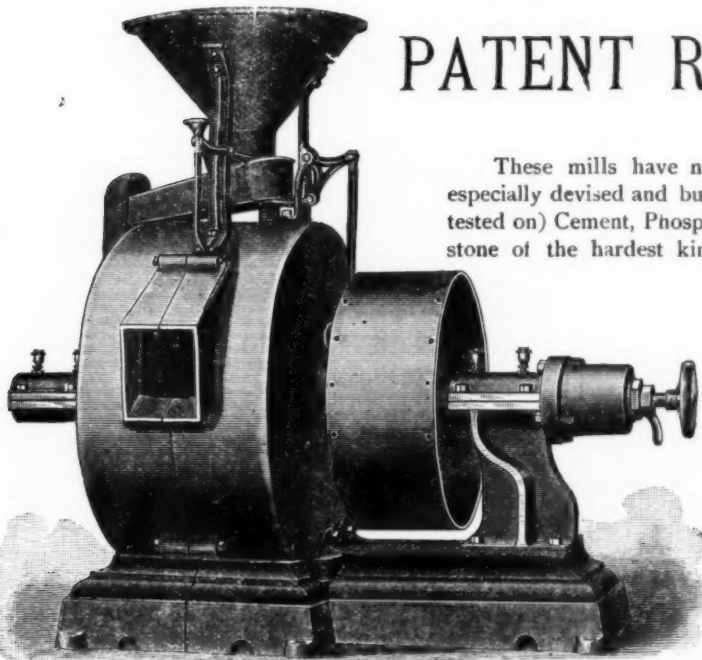
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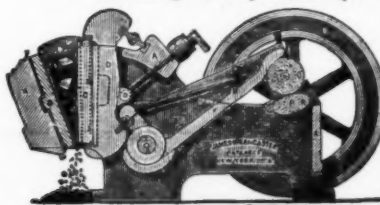
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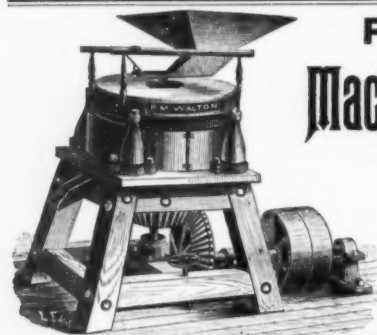
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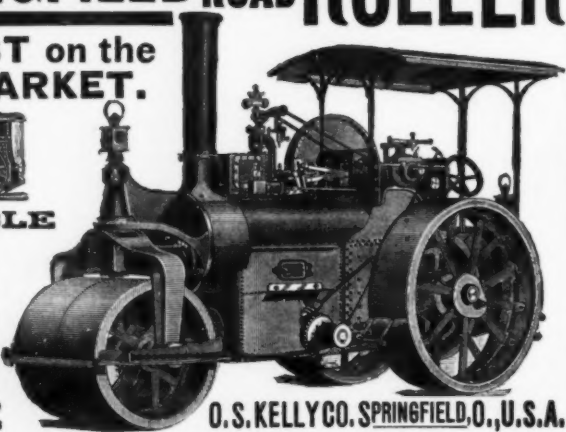
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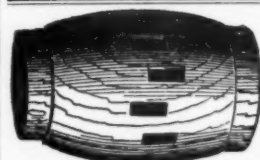
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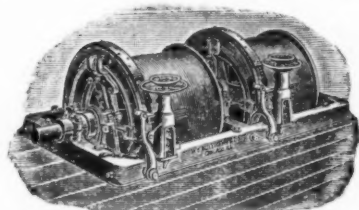


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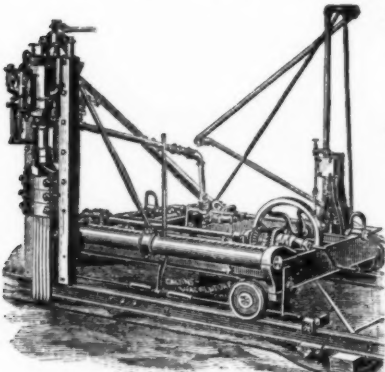
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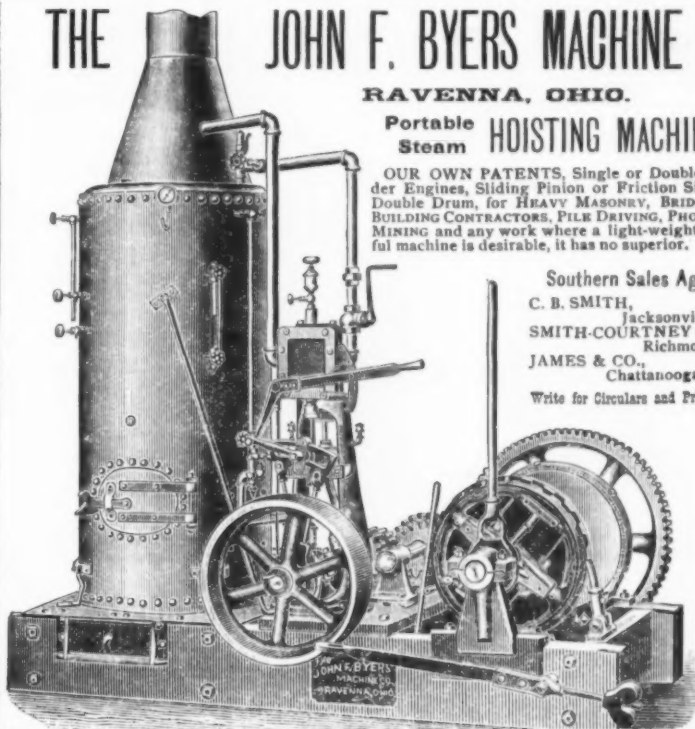
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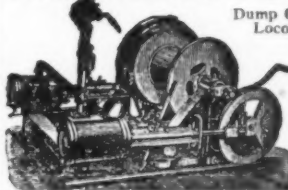
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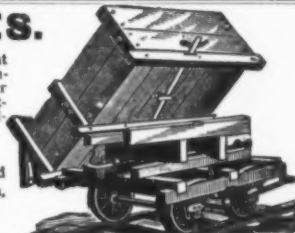


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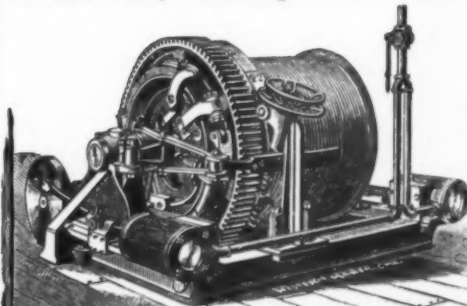
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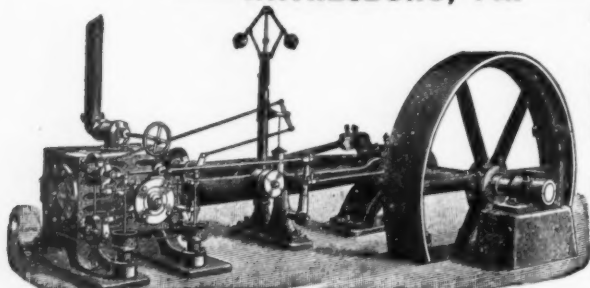
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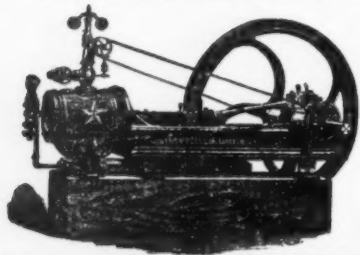
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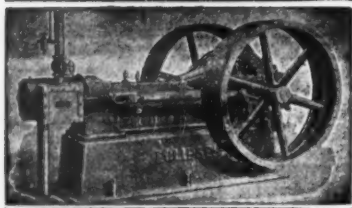
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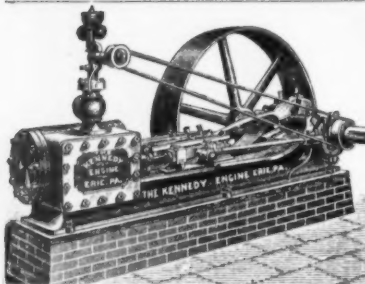
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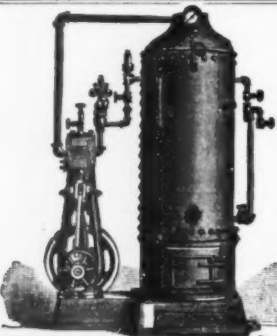
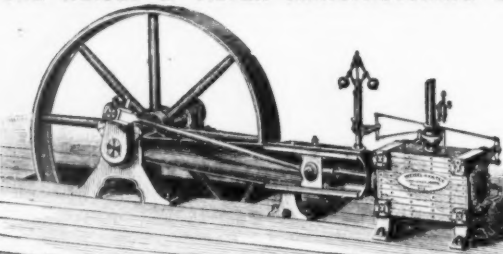


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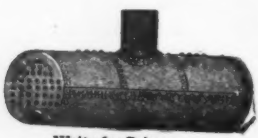


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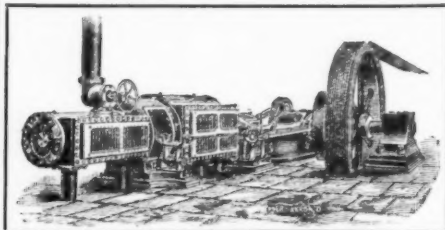
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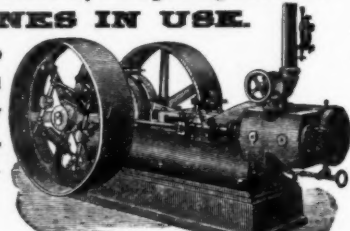
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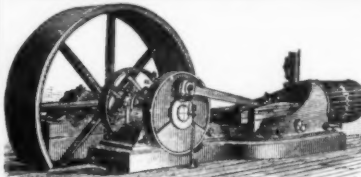
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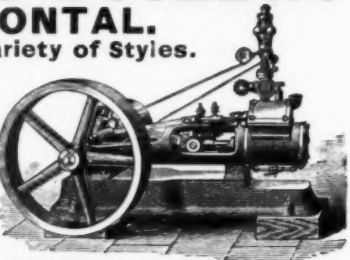
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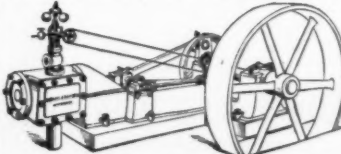


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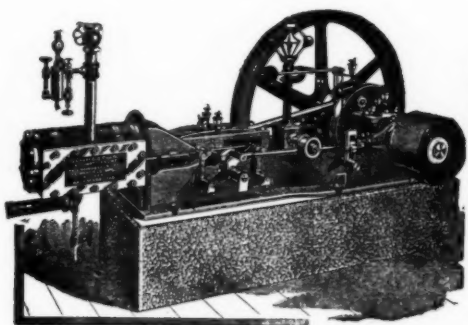
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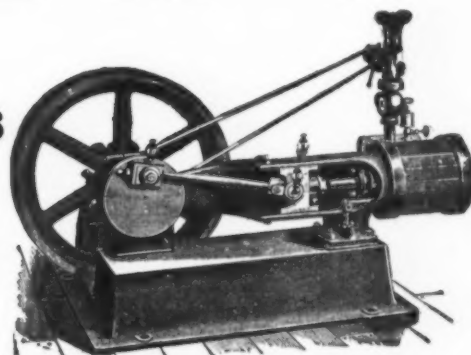
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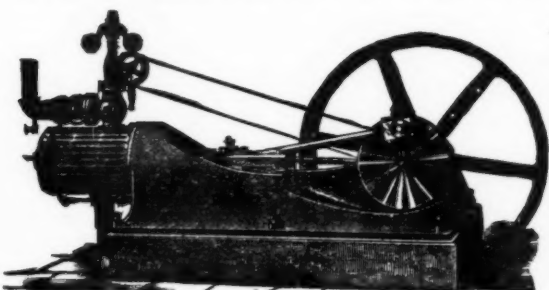
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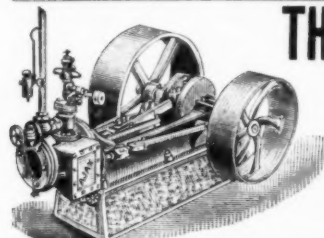


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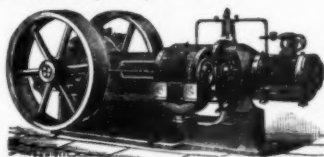
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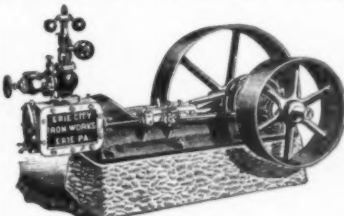
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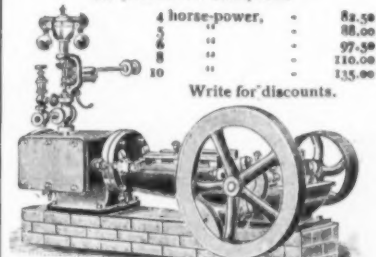
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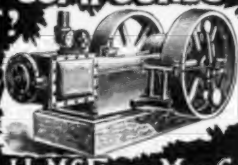
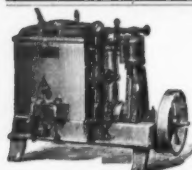
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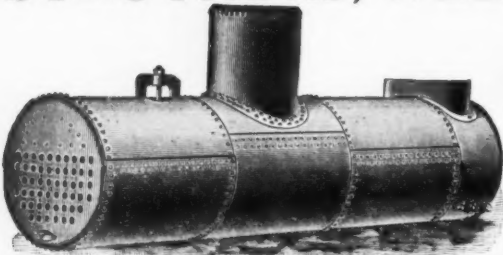
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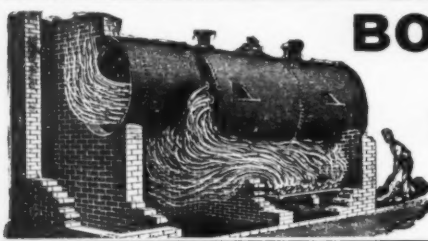
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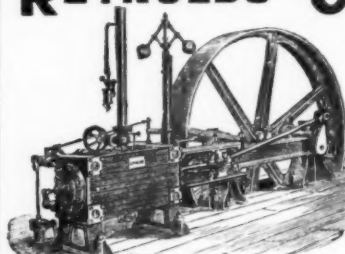
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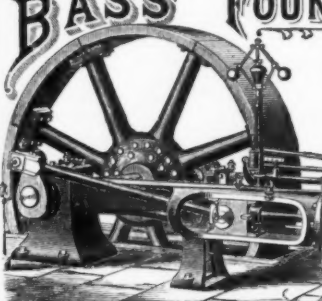
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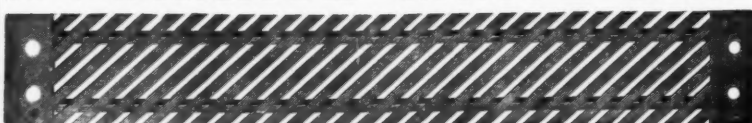
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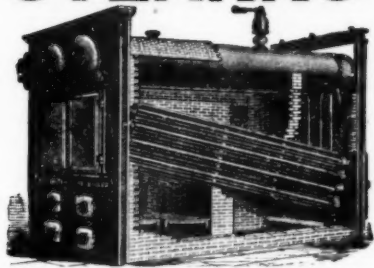
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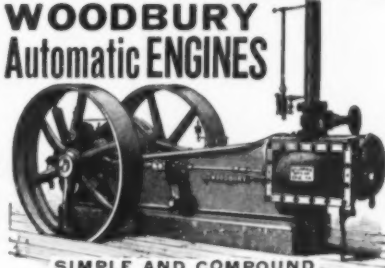
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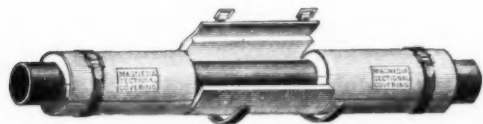
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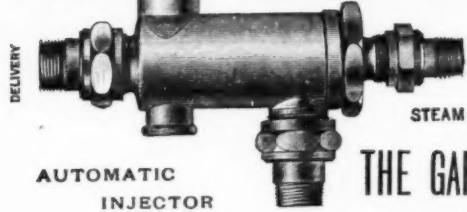
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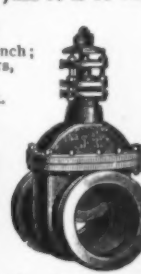
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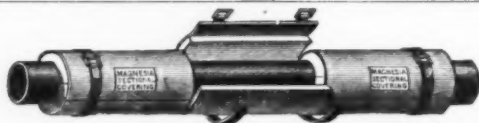
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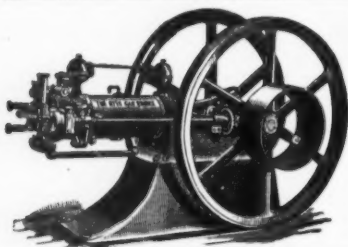
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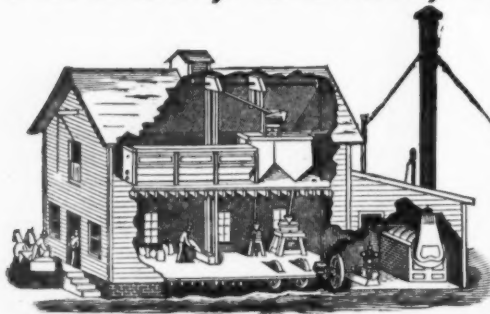
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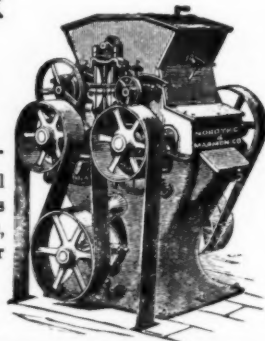
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VOL. XXII. No. 20.
WEEKLY.

BALTIMORE, DECEMBER 16, 1892.

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The Nicaragua Canal and American Commerce.*

By John L. Williams, Richmond, Va.

The State of Virginia recognizes the fact that the people of the United States have risen to the height of the great argument that is before them. The strong and convincing reasons and brilliant eloquence that have overwhelmed you here have come from the soul of the American public. They say to the world that the fullness of time has come. Four hundred years have been spent in peopling and civilizing North and South America, those mysterious and long-hidden lands, the wilderness and solitary place. Now the way and passage to the East that Columbus sought is to be opened. The everlasting gates and doors that by the will of God have been established between the two oceans are to be lifted up. Time's last and noblest offspring is to be proclaimed the glory and queen of all lands, "regnum gentibus." And the voice of the people in this case will be the voice of God. So it is that the Old Dominion, in the expanding brightness and glory of the New Dominion, is happy by the presence of her honorable chief magistrate to bid godspeed to this great enterprise and to send you her sedate business men to help your counsels. As one of these I beg to give you some weighty considerations in the following facts and figures:

It is a pleasant task as well as an easy one to show the benefit which the Nicaragua Canal will confer upon the commerce of the United States by opening up for our centres of activity freer communications with the ports of South America, and especially those on the Pacific coast.

We are not prone as a nation to think lightly of our success in life, nor have we any reason to be so. But looking at all the circumstances surrounding national progress in the world, we are justified in taking the past as a promise of better in the future.

It is an encouraging sight to see New York as the manufacturing, distributing and consuming centre of 65,000,000 people, but it is a grander sight we have in our minds when we look forward to its occupying a similar position in the world, and the other centres of our country marching proportionately forward.

If there is any one work of our hands that can speed this advancement it is the work we are assembled here to-day to aid by all the arguments we can produce. I feel flattered when I think that a demonstration of the value of the trade that the Nicaragua Canal must bring to our people from our southern neighbors will have some weight in awakening their interest in that noble work.

WHY SOUTH AMERICA TRADES WITH EUROPE.

How often have we heard it deplored that the United States does not control the trade that is just at her doors; that the republics of South America look to European nations to assist them in the distribution of their products, and to supply them with such of their needs as they cannot supply themselves. On the face of it this is a strange condition of things. One would suppose that if any nation was to act

as a banker and agent of these republics it would naturally be that great nation to the north of them, so full of riches, energy and enterprise, that has so great a capacity for the consumption of sugar, coffee, india rubber, cocoa, fruits, medicinal herbs and the many other good and useful things that South America exports so largely, and that has also such a capacity for producing the things that South America needs in return—cotton goods, cloth, machinery, metals and coal.

That England, Germany and France monopolize this South American trade is due to the operation of commercial laws, and not to any indifference on the part of our merchants and manufacturers to the chances of profit.

One nation trades with another in proportion to the facilities afforded. So long as England, Germany and France can offer the South American merchants better credit and freights, so long will they maintain their supremacy in the South American trade. The Pan-American conference and the facts and statistics which it has since produced prove how temptingly large the South American trade is, and the difficulties that stand in the way of its fuller diversion to the United States.

Among these obstacles the want of communication is the most important. With that remedied the others—not understanding the terms and conditions of trading in South America and the wants of its people—will not very long stand in the way.

So much has been said and written on these subjects for half a dozen years to educate our merchants and manufacturers up to the requirements of the South American trade that they ought now to be able to take at least theoretical graduation.

AMERICA HAS ABUNDANT CAPITAL.

There seems, too, to be on idea afloat that the United States has no capital for exploitation purposes abroad. That is not the case. If the United States has always been able to find employment for all the capital offered for her own development, she has also always had some to spare to assist progress abroad and build up her trade with other nations on this continent.

Who found the means for building so much of the mileage of the Central American railroads but the engineers and capitalists of the United States? Who are at this moment more active in the rejuvenation of Jamaica and reawakening of the forces of that one-time great British colony than American capitalists?

The same question may be asked in Honduras, in Chili, in Peru and in the countries of Central America. Besides, capital is beginning to pile up in our moneyed centres at a rapid rate, so that there is keen competition for good investments, and the return is becoming smaller from year to year. In this fact itself is the promise that so soon as other conditions are favorable the pecuniary means will be at hand to assist the greater and quicker development of our South American trade. The question of ability to handle a larger share of that trade than we now enjoy ought not really to come into any discussion. That has already been proved. That is not to-day so apparent because we have allowed ourselves to be pushed from the position we once held. The Argentine in

1859 sent us \$4,070,033 of her produce, and in 1872 \$9,169,000, but in 1890 only \$5,401,697. During the time of this contraction the Argentine trade has expanded at a rapid rate. Why our imports from that country, therefore, should lessen it is difficult to see.

OUR SOUTH AMERICAN TRADE.

Before we go farther let us see what the trade of South America is and what is the United States' share of it. The following figures supply this information as nearly as the latest collectible returns can do it. The figures for the United States are for the year 1890, while those of the total commerce of some of the South American republics mentioned are for somewhat more distant dates. This probably makes the showing for the United States by comparison a little better than it really is, because it is most probable that the trade of each nation increased from year to year, and that had the figures for 1890 been available in every case, the proportion of the United States would have been smaller than it is here shown to be.

Country.	Imports.	From U. S.
Argentina.....	\$137,262,565	\$8,887,477
Bolivia.....	3,952,520	.....
Brazil.....	115,554,079	11,972,214
Chili.....	59,362,080	3,226,364
Colombia.....	12,778,185	2,585,838
Costa Rica.....	4,377,202	.....
Guatemala.....	5,279,240	.....
Honduras.....	1,500,000	7,036,478
Nicaragua.....	1,482,886	.....
San Salvador.....	1,659,991	.....
Ecuador.....	1,730,552	.....
Paraguay.....	2,999,250	.....
Peru.....	5,192,022	1,427,391
Uruguay.....	33,461,100	3,351,874
Venezuela.....	11,538,787	4,028,593

Country.	Exports.	To U. S.
Argentina.....	\$97,390,335	\$5,401,697
Bolivia.....	8,471,660	.....
Brazil.....	138,615,265	59,318,765
Chili.....	60,158,347	3,183,249
Colombia.....	13,702,358	3,575,253
Costa Rica.....	7,107,547	.....
Guatemala.....	9,951,282	.....
Honduras.....	2,315,309	8,052,444
Nicaragua.....	1,651,762	.....
San Salvador.....	5,237,089	.....
Ecuador.....	7,421,991	.....
Paraguay.....	1,730,000	.....
Peru.....	6,600,000	351,695
Uruguay.....	30,112,750	1,754,993
Venezuela.....	13,926,587	10,966,765

WHAT WE HAVE LOST.

It will be seen from these figures, which are not as perfect as they should be, that not only does the United States participate to a comparatively small extent in the trade of these countries, but such share as she does get is made up much more largely in taking their products than in delivering them her own. It has been calculated that the adjustment of the trade of the last quarter of a century between North and South America has cost the United States nearly \$3,000,000,000 in gold, which vast sum, it is also said, has been expended by our neighbors on this hemisphere in Europe to purchase commodities that the United States could easily have supplied. This estimate at first sight appears exaggerated, but it can be accepted as fairly expressing the situation when we see from the figures already given that the United States took from Brazil in one year \$47,000,000 of merchandise more than she shipped to her, yet most of the principal imports of Brazil the United States is eminently able to supply—cotton goods, wines and spirits, preserved meats and fish,

woolen goods, farinaceous foods, coals, linen goods and iron and steel. In the order of nations trading with Venezuela the United States stands first as a buyer and only third as a seller. Guatemala finds a good customer in the United States for its hides, bananas and sugar, yet in 1890 bought \$500,000 more of goods of Great Britain than of the United States, and its purchases were made up mainly of cotton cloth, yarn, railway, telegraph and electric-light material, woolen goods, silk and flour. The story is the same, with only slight variations, in the cases of nearly all the nations in South America on the Pacific coast. Those nations possess soils of wonderful fertility, capable of raising an immense variety of vegetable and animal merchandise, for which the United States has shown a just appreciation and can be made to show more. They require manufactures in linen, cotton, wool, iron and other metals, and in some other instances coal.

Enough has been said to prove conclusively that we have the goods that are wanted in South America, and it is not necessary to go at length to prove that we can use the products of the South and can distribute them as soon as we control that trade.

HOW THE CANAL WILL HELP US.

The important question for the moment is, what assistance can the Nicaragua Canal render the United States in distributing its food products and manufactures to countries south of it, and bring within its borders some of their riches which now go to Europe?

This is paramount, because other points entered into the question of the South American trade will take care of themselves just as soon as the communication between ourselves and our neighbors of Latin America give us an advantage over Europe. When this is done the creation of the necessary fleet and the establishment of credits will follow as a matter of course.

The first enlargement of our trade will come principally from the South American countries of the Pacific, not merely because the Nicaragua Canal will make fewer changes necessary in the distances between the great trading nations of Europe and our Eastern coast and the South American nations of the Atlantic coast, but because the Pacific coast nations are the more healthy and hardy of the two, and by consequence its people more active, ambitious and enterprising.

While the South American Pacific ports will be brought nearer to their present markets (principally in Europe) from 2,000 to 6,000 miles, they will also be brought nearer to New York, which may be very confidently called their future market, from 5,000 to 10,000 miles. This will give New York the advantage of the whole width of the Atlantic in sailing distance over any European port trading with those countries, and that fact alone ought to be a factor of incalculable value in stimulating our trade with South America. By examining the interesting table of distances compiled by the Nicaragua Canal Co. it will be found that the sailing route from San Francisco now gives Liverpool the advantage of forty miles over New York, but

*A paper presented at the Nicaragua Canal Convention in New Orleans December 1, 1892.

that the day the canal is opened New York will have the advantage of 272 miles on the same route. This advantage will be still greater in the case of Hamburg, Havre and other continental ports. This lessening of the distance all being made after the vessel has left Greytown, the eastern part of the canal, it applies also to all the commerce of the South American ports with New York and European ports. New Orleans, which to-day is 380 miles further away from San Francisco by sailing distance than Liverpool, will be 3,500 miles nearer than Liverpool when the canal is opened to traffic.

Nothing has been said and it is not necessary to say anything of the growth of that trade under the impetus of easy and freer communication with a people so enterprising as our own, possessing ample resources and creative skill and powers of consumption.

It is not necessary to go into that because the figures and facts already given are in themselves quite sufficient to prove two things—one, that the United States has not that share in the trade of South America that it is entitled to by contiguity, resources and abilities; and the other, that the Nicaragua Canal will remove the great difficulty that now stands in its way to the entire domination of the trade of this hemisphere, and thereby give to this country a commerce of immense pecuniary value.

Atlanta is the South's New York.

[From the Madison (Ga.) *Madisonian*.]

Atlanta is the New York of the South. It is the hub around which all Georgia revolves. She is the queen city of the Piedmont region, the Mecca of the dwellers in the Bermuda belt and the cynosure of the eyes of all strangers who pass within the Mason and Dixon line.

Her busy, bustling, noisy streets, the earnest throngs of human beings who frequent her highways, at once impress the stranger within her gates most favorably. A business atmosphere seems to pervade the whole city, which, once inhaled, makes a man an Atlantan in spirit if not in reality.

Nowhere else in the South is exhibited such pluck and vim as is seen in Atlanta. Nowhere else do people come so close together in every laudable undertaking. Nowhere else do men labor so earnestly and unselfishly for their city's good—and right here lies the secret of Atlanta's greatness. This secret was told to Atlanta's people in the earnest words of the immortal Grady. They have kept it well. Every man, woman and child who resides in Atlanta is a living, walking advertisement of the city. Their password is "Atlanta."

Atlanta has no canals, no mighty rivers, no advantages greater than her sister cities. Then wherein lies her greatness? It is found in the throbbing brain and beating hearts of her noble citizenry. Cities are but what people make them, and Atlanta's greatness springs from her people.

THE South Baltimore Harbor & Improvement Co. is quietly at work locating manufacturing factories on its extensive property at Curtis Bay, and from present indications it gives promise of being an extensive manufacturing centre. Many large and small investors have been looking at the property during the past week with the intention of building houses for investment, which will yield good returns, either to sell or rent. Mr. Rayner, the president, is in correspondence with two large manufacturers in the North who are desirous of locating at Curtis Bay, and it is probable we may be able to chronicle the event of more large concerns moving to this point. It would be well for those who contemplate a change of location to write Mr. William S. Rayner, 8 East Lexington street, before entering into negotiations elsewhere.

The Marble Region of Knoxville, Tenn.

[Abstract of an article by Geo. P. Merrill, in *Stone* for November.]

Reference to the geological map of East Tennessee shows a broad band of Trenton limestone extending across the State in a northeasterly and southwesterly direction, bounded on the east by the Unaka mountains and upon the west by the Cumberland table land. This section, known as the Valley of East Tennessee, is entirely underlain by this Trenton limestone. Though all belonging to the Trenton formation, the limestones throughout the belt are by no means uniform in composition nor regular in structure and arrangement. In the order of their original horizontal position, the various beds in the series lie as follows, beginning with the lowermost: Blue limestone, with many fossils, 200 to 600 feet thick; chocolate red, pink and variegated limestones (marble), highly fossiliferous, 380 feet in thickness; blue shale, 400 feet thick, and lastly the so-called iron limestones, 250 feet in thickness.

Although now discontinuous, the marble beds, according to Professor Safford, the State geologist, once covered a long area, reaching from the northern part of McMinn county to the Virginia line north of Rogersville, an area of some 120 miles in length by twenty miles wide. Before the Appalachian chain assumed its maximum elevation, they formed the bottom of shallow seas, where lived and died the multitude of corals and crinoids whose calcareous remains constitute so large a bulk of the stone and so beautifully diversify it. The forces which gave birth to this mountain system threw the beds into a series of folds, and to the heat and pressure incident to this folding is due the crystalline structure and physical qualities which so perfectly fit the stone for decorative work. Subsequent erosion has cut down the tops of these folds, leaving the remaining beds sometimes steeply inclined and often badly shattered and decomposed.

A map of Knox, Blount, Loudon and Monroe counties, compiled by the United States Geological Survey, shows the present marble areas to be comparatively narrow, greatly elongated in a northeast and southwest direction, and often very sinuous. They reach their maximum width or thickness in the region adjoining and southwest of Knoxville. Only a portion of these beds are capable of yielding merchantable marble. This is for a variety of reasons, prominent among which are the facts that (1) the original character of the sediment was not uniform over the entire area; (2) the beds were not infrequently shattered during the upturning, whereby the production of sound blocks of merchantable size is rendered impossible; (3) the beds are not infrequently too deeply covered with worthless debris, rendering the work of shipping exceedingly costly, and (4) terrestrial waters have in many cases dissolved out portions of the stone along lines of weakness and fracture, leaving the sound material behind, not in continuous beds, but in rounded, boulder-like masses. Indeed, this last named condition of affairs is peculiarly characteristic of the region, and to it is due the too prevalent impression that the Tennessee marbles are not found in solid beds at all. Such a view is due only to limited knowledge of the region, though that such an idea should have originated is by no means strange when the surface appearance of the stone and very superficial manner in which it has, in most cases, been quarried is observed. At the Knox and Brown quarries, on the Marietta & North Georgia Railroad, some seventeen miles south of Knoxville, this boulder-like character of the beds is well shown. In different places in the marble area the stone lies nearly horizontal in beds from two to six feet in thickness, sometimes in continuous beds, or again in disconnected masses, originally continuous,

but now divided by joints which, by the percolation of water, have widened into fissures. These last are often filled with a tenacious red clay. In other cases the beds dip, sometimes very steeply.

In color the Tennessee marbles are variable. That first brought into notice was a highly fossiliferous dark chocolate stone variegated with white. To many persons this is still the only "Tennessee marble." Beautiful as are many of these varieties, with the chocolate or even red groundmass, often variegated with large white fossils, they are by no means the only, nor at present the most sought for, marbles of this region. Just now the demand is for a warm, bright stone which may be used for interior decoration. Such a stone is found in the granular gray and pink beds immediately underlying the fossiliferous variety. These are the beds which are now receiving the greatest amount of attention, and which may well claim equality with any stone on the market. Slabs ten by four feet or six feet square are readily obtained free from all flaws, giving over every inch of surface a finish like enamel and requiring no filling whatever.

The Tennessee quarries are in many instances peculiarly favorably situated for the shipment of their product. In those at the junction of the French Broad and Holston rivers an inclined railway takes the blocks to the water's edge, where they are loaded on scows and taken down stream to the railroad. In other instances short branch lines connect the quarries with the main line of the railroad. There appears to be a deplorable lack of business foresight and energy displayed by the railroads to which close branch lines are tributary. Little encouragement in the way of building the lines or other inducements such as might result in vastly increasing their own carrying trade has been offered. Indeed, throughout the region the managers have yet to learn that there may be methods of building up an extensive traffic, either in freight or passengers, other than by begrudgingly accepting what is practically forced upon them.

Marble quarrying in East Tennessee began in 1838 with the organization of the Rogersville Marble Co., with headquarters and works at Rogersville, in Hawkins county. The stone was first brought prominently to public attention by its adoption for interior decoration of the United States capitol building at Washington. Stone for this purpose was obtained from quarries opened by the government at a point some nine miles southeast of Rogersville, on the banks of the Holston river. For many years nearly the entire supply of the so-called "Tennessee marbles" was drawn from quarries in this vicinity, but of late years, owing to the more easy accessibility of the stone in Knox and Blount counties, together with a growing demand for the pink granular over the variegated varieties, there has been a decided change, and the quarries of Hawkins county produce but a relatively small proportion of the entire output.

The methods of quarrying in the Tennessee regions differ a little from those elsewhere employed. The Ingersoll quarry bar and ordinary steam drill are the main reliance, though the Knox system of blasting, whereby large blocks may be lifted by a single hole charged with but a few ounces of powder, and this without shattering or otherwise injuring the material, bids fair to do away with either. The quarried material is in large part shipped in bulk to New York and other large cities, but a not inconsiderable proportion is worked up in Knoxville. The marble-quarrying industry of East Tennessee is yet in its infancy—first, because there is an unlimited supply of varieties sufficiently diversified to meet the demand of an ever-changing and capricious fashion; second, the use of marble for interior decoration has but begun in Amer-

ica, and in the past ten years there has been a wonderful change in this respect, and the number of private and public buildings which are erected annually in large cities, and which are richly, even elaborately, decorated with the most expensive marbles, is increasing at a marvelous rate; third, there are no marbles known within the limits of the United States which are superior to the "Gray Knox," "Peach Blossom," "Maiden's Blush" and other varieties from near Knoxville.

An important item which has heretofore mitigated against the Tennessee stone is the unbusiness-like methods of quarrying pursued in times past. Owing to lack of capital or the proper knowledge of quarry methods, the quarries have been little more than holes in the ground. A minimum amount of stripping was done and attention given to getting out the merchantable block at once, disregarding the interest of the future. As a natural consequence the quarry was shortly buried in its own debris, and further work would require a prohibitive amount of capital. The iniquity of this system is fully recognized by the present operators, who are devoting a large outlay to stripping and preparatory work.

The course which has been pursued by the New England granite workers has done much to bring the marble industry of this section into further prominence, and an advance has been made which can never be lost. Other items which favor the further development of the quarries in this region are equable climate and the low price of labor. The output of marble for the entire State of Tennessee during 1889, as given by the eleventh census, was 309,709 cubic feet, valued in the rough at \$419,467. Twenty-nine quarries and some 750 employes were engaged in its production. While this amount is less than one-tenth the production of the United States, it should be remembered when making comparison that the total includes building marbles, while the amount from Tennessee is decorative stone only. So that while the State stands but fourth in the list as a producer so far as actual quantity is concerned, being outranked by Maryland, New York and Vermont, in point of value of quarried material it stands second, being outranked only by Vermont. This in itself speaks well for the superior quality of Tennessee stone.

Toronto Meeting of Mining Engineers.

The sixty-fourth meeting of the American Institute of Mining Engineers will be held at Montreal, Canada, on Tuesday, February 21, 1893. During this same week the Mining Society of Nova Scotia, the Asbestos Club, the Provincial Mining Association of Ontario, and the General Mining Association of the Province of Quebec will hold their inter-provincial mining conference. This will enable members of the institute to meet a large number of representatives of the Canadian mining industry, and sessions of the conference will be arranged in which they will be invited to take part. In addition to the pleasures of the Canadian winter, the social entertainments and visits to industrial establishments in and around Montreal, an excursion is contemplated to the collieries and iron works of Pictou county, Nova Scotia.

THE Gainesville Board of Trade was recently organized at Gainesville, Fla., with H. F. Dutton, president; H. E. Day, vice-president, and J. O. Andrews, secretary. The following officers of committees were appointed: H. E. Benson, chairman committee public improvements; L. A. Barnes, chairman committee agriculture; A. J. McArthur, chairman committee of manufactures; W. B. Lynch, chairman committee transportation; W. A. Taylor, chairman committee immigration; W. W. Hampton, chairman committee arbitration.

Progress of the World's Fair.

[From our own Correspondent.]

CHICAGO, December 12.

Those who visit the World's Fair grounds constantly to note the progress of the work, observe that the most striking changes that now occur from week to week are of an artistic character. Most of the magnificent buildings, whose lines are now so familiar, are practically complete, so far as the exteriors are concerned, but the decorative effects multiply weekly. The ideals of an army of sculptors are assuming tangible shape, and it is possible to gain at the present time something of an idea of the effect. It must be admitted that their work is on the whole amazingly excellent. Assigned to the stupendous task of enhancing the beauty of the grounds and of contributing to the architectural wonders of the fair, limited in point of time, laboring under the most unfavorable conditions, circumscribed in the choice of subjects, they have performed their share in the great enterprise with marvelous success. Much of their work possesses such merit that it is a matter of regret that it is to be merely temporary. They have heightened the general effect so admirably that a European, who recently visited the "White City," as the grounds are styled, remarked that while the exposition at Paris was what one might have attributed to prosaic Chicago, the structures at Jackson Park are what one might have expected of artistic Paris.

* * *

Two topics, both relating to closing the gates, are the special subjects for heated controversy in World's Fair discussions. One is, of course, the much argued matter of Sunday closing. In this city, where the discussion has never ceased since the very inception of the undertaking, there now seems to be a very decided trend of public opinion. A representative of the most prominent religious paper of the city recently said to the writer: "In my opinion the settlement of this bitter dispute should be this: The gates should be open, but the machinery should be shut down and buying and selling prohibited. While I may not wholly approve of this arrangement personally, it perhaps is unfair to insist upon strict religious considerations. The proper point of view is that of the humanitarian. Jackson Park, where the fair is located, is a public pleasure-ground. If it is to be monopolized by a private corporation it may not be in all respects right to prevent the people from going there on the first day of the week." It will be admitted that this is a decided concession, and in view of the antagonistic opinions entertained this suggested compromise is sensible. If Congress follows the direction of public opinion some such solution of the problem will be embodied in legislation.

* * *

The announcement that the gates would be closed evenings with the exceptions of special nights raised a storm of opposition, especially from the electrical manufacturers, who protested that their exhibits would be relatively insignificant if such action were taken. The fair management subsequently modified its declaration by intimating that from three to six evenings would be exceptional occasions. This concession was by no means satisfactory to the protesting electrical exhibitors, who insisted upon a positive assurance that the gates were to be open every evening. Their unanimity, earnestness and ability to enlist influence in their cause lead to a belief that the fair authorities will be compelled to grant their demand, especially in view of the fact that the public has from the outset regarded the electrical exhibit as one of the great attractions of the exposition.

* * *

It is now generally believed that Georgia will make a creditable exhibit of its re-

sources and industries. This impression is based upon the enthusiasm manifested by the distinguished delegation of Georgians who recently made a pilgrimage to the "White City." The party, which was headed by Governor Northen, included thirty members of the legislature and a representation of six of the leading journals. They made a careful inspection of the grounds and the magnificent buildings, and expressed themselves as amazed at the stupendous character of the undertaking. And it was not surprising. Pictured and described as the fair has been, its extensive character is not fully realized except by those who have carefully studied it on the ground. Illustrations convey wrong impressions as to size, and highly-colored descriptions, with their wealth of adjectives, are not taken at their face value. It is always proper, in fact, to discount statements of Chicago marvels. However, a canvass of the Georgia party revealed the fact that to a man they believed enthusiastically that the State should be properly represented; in fact, pledged themselves to that effect. An obstacle has hitherto stood in the way of an appropriation. Just what the trouble has been was explained by Governor Northen in this wise: "Our constitution is peculiar. It was drawn by old General Toombs, who seemed to be impressed with the belief that wisdom in our State would die with him, so he locks the treasury, and, as he expressed it, threw the key away. We have been trying to find a key—and I think we have just about succeeded—so that we can make an appropriation. Our plan now is to have the agricultural and geological departments ask for unusually large requisitions, and to devote a great share of it for an exhibit." The governor also took occasion to say a good word for the State of which he is the executive head: "Georgia," he asserted, "is the most progressive State in the South. We want Northern farmers and Northern capital, and if we can show—and we can—that Georgia will raise wheat, oats, corn and fruit equal to any State in the Union, and that land can be bought for prices ranging from \$5.00 to \$15.00 an acre, they will come by the thousand, and that's what we want."

* * *

The number of so-called World's Fair schemes exploited by persons of varying degrees of dishonesty and effrontery is legion. No sooner had the enterprise been launched than a host of what may be vulgarly termed "fakes" came into being, and their promoters created that almost universal belief that "every one in Chicago proposed to get rich during the fair." A great number of agencies circulated broadcast the announcement that they had peculiar and exceptional facilities for securing desirable space for intending exhibitors. In the face of warnings from headquarters and despite the announcement that in no case would space be charged for, but that companies should deal with the departments direct, a great many applicants entered into negotiations with these concerns. It is predicted that within a comparatively short time they will wake up to a realizing sense of the fact that they have been gulled. The assignments of space are to be made public shortly, and then it will be known that hundreds of applications have been thrown out. Indignation over an imposition practiced upon them will soon be local. In general it may be said that it is safe to be extremely shy of World's Fair schemes. They are divisible into the three great classes of good, bad and indifferent, but probably by far the greatest share is to be classed in the second division.

* * *

A vast amount of work is in progress in the palace of mechanic arts, or machinery hall, as it is more familiarly known. The first exhibit installed in permanent form,

an air compressor, is now to be seen there. The south side of the building and an annex are to be devoted to the steam generating apparatus, and already boilers, steam pumps and a variety of appliances are on the ground awaiting installation. At the lowest estimate 30,000 horse-power will be available, and the boilers can be called upon to meet a demand considerably in excess of that amount, if necessary; yet at the Centennial 2,000 horse-power was sufficient to operate the machinery. It gives a person somewhat of an idea of the immensity of the plant when he reads that the Niagara Falls Power Co. estimated that the city of Buffalo required only 40,000 horse-power to meet its needs. All the most prominent boiler-makers will be represented by exhibits in actual service. The competition to secure the right to erect steam generating apparatus has been very keen, although the manufacturer must shoulder pecuniary loss. The fair management pay so much per horse-power, and this amount includes all expenses of the installation, maintenance, labor and removal at the close of the exposition. But a medal of superiority is a prize that is so highly regarded that manufacturers are willing to make the pecuniary sacrifice. For fuel oil will be piped to the southeastern part of the grounds, whence it will be pumped to the boiler-rooms. The great object of interest in the power-room will be a 2,000 horse-power Allis engine, which will drive a 10,000-light Westinghouse dynamo. Ten engines will be of a capacity of 1,000 horse-power each, while the capacities of forty-five others will range from 600 to 150 horse-power each.

* * *

The complete list of exhibitors has just been published and includes the names of 18,000 applicants. They have asked for 5,000,000 square feet of floor space, while only one-quarter of that amount is available. The list of German exhibitors has just been received by the fair authorities. It contains the surprising number of 5,007 names, and this list of applicants demonstrates very conclusively the falsity of the statement that foreign nations did not propose to participate generally in the exhibit. It seems, too, to justify the action of the director-general in assigning half the space in the buildings to foreign exhibitors.

WORLD'S FAIR NOTES.

What Is Being Done Towards Representing the South at Chicago.

NORTH CAROLINA.

The women of North Carolina have been forced to abandon their efforts to erect a State building at Jackson Park, Chicago. Mrs. Robert R. Cotton, chairman of the ladies' committee, makes the public statement that the response has not been adequate to the necessities of the work, and that not being able to meet the requirements of the exposition managers, they have been obliged to relinquish their object. All the money collected for this purpose will be returned to the donors. The Virginia Dare Columbian Memorial Association, which attempted to aid in the construction of the building, had also for its object the erection of a permanent memorial to perpetuate the memory of Virginia Dare, the first white American woman, and will request the contributors to the building fund to permit the amount contributed to be transferred to this account. At a recent meeting of the board of World's Fair managers reports were read showing great progress in the work of collecting the exhibits. The State exhibit will be magnificent and complete, surpassing any which North Carolina has ever made, either at New Orleans, Atlanta or Boston.

WEST VIRGINIA.

The educational exhibit of West Vir-

ginia when completed will consist of information and material along the following lines:

1. A complete list of West Virginia authors and their works arranged in chronological order.
2. A complete collection of reputable books, whether written by natives or citizens of this State.
3. All books and pamphlets treating of West Virginia's history, people and resources, by whomsoever written.
4. A complete list of West Virginia journalists and periodicals of every description.
5. Photographs of West Virginia authors and journalists.
6. Two copies of the first issue of every periodical in the State after the 21st of October, and two copies of the last issue in December, 1892.
7. A complete collection of all industrial or boom issues of regular periodicals and of all periodicals or pamphlets issued expressly for describing the resources of any section of the State.

Part of this exhibit will be displayed in the West Virginia building and part in the space allotted to the State educational exhibit.

MARYLAND.

The State board of education has asked for 10,000 square feet of space in the liberal arts building for an educational exhibit, and also requested \$5,000 to defray the cost, which, however, the State commissioners did not find themselves able to grant.

"THE GROTTOS" OF VIRGINIA.

Mr. S. H. Newhall, curator of the geological department of the Smithsonian Institute of Washington, has been in Shendun, Va., getting together a collection of stalactites, stalagmites and other wonders from Weyer's cave for an exhibit at Chicago. Mr. Newhall says that specimens from the caves in this locality exceed all others in beauty, and that this will be the largest and most comprehensive display of any cave known. After being displayed at Chicago, the specimens are to be brought back to Washington and given to the Smithsonian Institute.

GEORGIA.

Since the subsidence of excitement over political matters, and in view of the gratifying outlook after the result, there has been a revival of public interest in the matter of an exhibit from Georgia at the World's Fair. A practical outcome of the agitation has been the visit of a committee from the legislature, a party of press representatives and Governor Northen to Chicago with the view of encouraging an appropriation by the legislature. The party, in charge of Col. B. W. Wrenn, of the East Tennessee, Virginia & Georgia Railroad, went to Chicago in a special train of Pullman cars, and spent one day in examining the World's Fair buildings. Governor Northen has always been a champion of the exposition, has worked unceasingly for an exhibit from Georgia, and believes that an appropriation will be made. The subject of a mineral exhibit is deemed of much importance, and from a list of Georgia's minerals and ores, furnished to the Atlanta Constitution by Chief Skiff, of the mining bureau of the World's Fair, it is readily seen that Georgia could make a display of resources in this line equal to that of any of the thirty-five States of the Union now planning valuable and attractive mineral displays. The only space reserved at Chicago thus far for an exhibit of Georgia's products has been made by an Ohio syndicate interested in fruit culture in Houston county. It is not thought too late to begin work on an exhibit now, and the general opinion seems to be that no other means could so effectually bring the State's resources and advantages before the world, and aid in its future development.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department, on page 410.]

How to Run a Card-Room in a Cotton Mill.

A good carder, one who can furnish the spinning-room with roving and never get into any trouble, is a valuable man, and a manufacturer must not let such a man go if a reasonable amount of money would keep him. Carding is of the most importance of any single department, and if the right man is in charge of it he should be the best paid overseer. If such a man is entrusted with the success of the whole mill he should feel the importance of the position and give an equal value for money received. He will know every day how his machines are running and if they are making poor or good work. He should not sit and wait for something to show itself wrong, for if on the watch he will discover many things before they produce any poor work. Cards must be given good care; the clothing should be kept in good order.

At the present time I do not know of any men who are using anything but steel wire, and I prefer fillets for both cylinder and doffer, either for the English card or the common American card. It gives me more carding surface than sheets, and we can allow much wire to break out and yet have more carding points than we get on a new card covered with sheets.

A card to do its best and most should be ground once in two weeks, no matter which kind. The English card must, and the American card ought to be, ground this often, the English because it does so much work, the American because it would do so much better work. It is the custom in general use to grind the English card every two weeks and the American once in four weeks. Now the American card will not remain sharp any longer producing fifty pounds per day than will the English producing 150 pounds per day, and with this ratio the English card will be in better condition at the end of two weeks than will the American. This being the case, we should give the American top-flat card a better chance to do good work than we now do by grinding oftener and grinding lighter than is usually done. When grinding American top-flat cards it takes more time to get the wire up in condition to grind than it does to do the grinding. One reason for this is that we let the cards go too long without grinding, hence much wire is down and there are many jams; another reason is we do not make as good laps for the American as we do for the English cards—two very important, and I might say all-important, factors to good, clean carding.

To do good grinding on any card with steel wire No. 20 emery should be used on the traverse or "Hardy" grinder.

The American top-flat card, when being taken down to grind, should be brushed out clean and the wire all put in proper position before set to grinding. The grinder should be set so that the man doing the grinding can hear, provided he has good hearing, the emery wheel hitting all the way across the card while he is standing erect in front of the doffer. This I would call light grinding, and, if the card is not jammed or faced, one hour is long enough for it to grind, or about the time it takes the man to get up the wire and grind the top flats. An operator pursuing this method can grind with ease three cards per day, or eighteen cards per week of sixty hours, and as forty cards usually constitute a section for a man, it will be seen he can get around in about two weeks.

Every carder should have a system about all his work, and more particularly about his grinding, for if he has the proper system his men can grind eighteen cards per week,

and if properly set good work will always be had.

The tops should have such a pitch that every tooth on the top should do its part of the work, i. e., retaining the moths, leaves, etc., until the stripper removes them. The first six tops from the feed roll should be three gauges from the cylinders; the next six, two gauges, and the balance should be set as close as they can and not touch the cylinder. The doffer must be set the same. The comb should be set to the doffer so as to clear the doffer properly. For ordinary staple the feed roll should be set by one gauge the thickest. A card ground and set in this way will produce fifty or sixty pounds per day of as good carding as anyone could expect.

The really good carder will examine his cards personally every week, and if he finds the least thing wrong about the cards he should pleasantly call his grinder's attention to it and have it made right then and there. If the carder does this every week the men under him learn to partake of the same spirit, and are always on the alert never to let the boss find anything wrong, and good, clean carding is always had.

With the revolving flat cards a different course must be pursued. The top flats being stationary, are not removed to grind. The cards are brushed out by a revolving brush, and the grinders put upon the card at once. No wire is "got up" as it is termed, because it is very seldom that any wire is down on these cards. The shell feed and leader so protect the cylinder that it rarely gets jammed in any way; hence, an hour's grinding of these cards, cylinder and doffer, is all sufficient, and the cards can very quickly be ground and set to work again, the tops always being ground while the card is doing its work carding cotton.

A man can grind four of these cards per day, twenty-four per week, and if they are doing 800 or 900 pounds per week each, they should not under any consideration be run over two weeks without grinding. They should be set every two months. If carding common staple one or one and one-eighth inches long the tops should be set within 9-1000 of an inch to the cylinder, the doffer the same. Some set doffers to 7-1000 of an inch, but there is but little if anything gained in setting doffers as close as 7-1000. The leader I set 14-1000, the shell feed the same. If the revolving flat card has this care and close settings, there is no trouble in getting 800 pounds per week of 50s yarns of superior quality. If carding for 12, 14, 16 or 20s yarn, 1,000 pounds per week can be maintained. I am doing more than that for 12 and 14s yarn from Pettie American built cards, which I consider as good as the best. It is the close settings of these cards that enable them to produce so large a quantity of work, and to get these close settings the cards have to be built as near perfection as possible for a machine to be.

These cards give me the best of satisfaction on all numbers as fine as 50s, and with three processes of drawing six into one each, I have been as successful in keeping the numbers to standard weights as the best can on the railway head system. Keeping the lap in the picking-room on the finisher picker at the standard weight, so that they do not vary one pound extremes for the whole lap, is the point to look well after; and I have run for 30 and 40 yarn for over a year and have not changed a gear anywhere for uneven numbers. Yet these numbers have not varied over one and one-half numbers from standard in that time. In fact, with this system of carding I have not experienced the trouble with the numbers coming near right as I have on the American system, double carding with railway heads.

Many are at the present time adopting the railway head for first drawing to the revolving flat cards; then put through the pro-

cesses drawing six into one; but unless these railway heads are better cared for than they usually are on double carding, they would be more of an unevener than they would an evenner.

The successful running of a carding room—that is, good, clean work and smooth, strong yarn—depends entirely how well it is cared for. And it matters not which system of carding is used, the man who can give the best results at the lowest cost is a valuable man.

The draft of card should not be too short or too long to get the best results. If the draft is too short the cotton passes through the cards so quick that it does not have time to clean, and the sliver from the doffer is full of bunches. If the draft is too long, the cotton remains at the feed roll so long a time that the staple is weakened and broken, so that more goes to fly, and the yarn is not as strong as it ought to be. To get at the right point in this matter needs some study and experience. I have found that a draft of about sixty-five (a little more or less matters not) is the best for good, strong yarns. This draft, for either the American or English card, with the doffer turning ten revolutions per minute, producing fifty and 130 pounds per day, respectively, is about the right proportion for numbers from 25 to 35.

The numbers of yarn and stock used have always to be considered in putting the machines in order for carding, but it is seldom necessary to change the draft on cards to any great extent. It should never be done but by careful consideration, that we may never lower the standard of the yarn, but maintain it at all times. To this the good manager and carder will give his personal attention, that the plant will always get good results.—M. G., in *Textile Record*.

Southern Textile Notes.

THE Matoaca Manufacturing Co. has decided upon making extensive improvements to its cotton mill at Matoaca, in Chesterfield county, Va., and will at once commence work on same. The entire plant, consisting of four buildings, is now being remodeled and undergoing extensive repairs. The plant will, when completed, consist of three buildings, connected by a covered passage, one of which will be the carding department, one the spinning department and the other the slashing department. Samuel W. Lang, superintendent of this plant, is also superintending the various improvements.

MR. M. T. AMMEN, proprietor of the Fincastle (Va.) Woolen Mills, has turned out lately some excellent work in his line, consisting of blankets, flannels and other goods. His establishment is equipped with first-class machinery, and he has every facility for turning out a superior quality of goods. While he has in stock all kinds of fabrics, his specialty lies in his superior make of blankets.

THE Raleigh (N. C.) Cotton Mills have lately put in two Broadbent cone winders and a Kitson automatic feeder. This plant operates 6,192 spindles on hosiery yarns, and its goods have an excellent reputation. J. S. Wynne is secretary-treasurer of the company.

THE Falls of Neuse Manufacturing Co., of Raleigh, N. C., has recently added new spindles to its cotton mill and put in fire apparatus.

TALK of the early resumption of operations at the Pulaski Knitting Mills still continues at Savannah, Ga. A Mr. Linderman, of Philadelphia, Pa., an experienced manufacturer, is said to be negotiating for a controlling interest in the company.

THE Windsor Cotton Mill at Burlington, N. C., has recently been improved by the addition of 2,000 spindles, and sixty-eight Crompton looms are now being added.

Messrs. R. L. and J. H. Holt, Jr., are the proprietors of this plant, and their output is ginghams, denims, plaids, etc.

THE Durham (N. C.) Cotton Manufacturing Co. has lately placed considerable new machinery in its mill, including 1,568 Sherman patent Rabbeth spindles, three Providence (R. I.) fly-frames, thirty-two Whitin looms, some cards and Kitson openers. Other improvements, including the installation of a 300-light dynamo, have also been made. This plant is now operating 11,016 spindles and 244 looms on chambrays, sheetings, etc. J. M. Odell is president of the company.

GEORGE P. TURNER has completed negotiations for the establishment in Huntsville, Ala., of a plant to be known as the Rightmire Knitting Factory. About 200 dozen pairs of socks will be turned out daily.

THE Pocahontas Mills, of Petersburg, Va., are running in full with 4,000 spindles and ninety-two looms in operation, turning out a fine line of drills, yarns, etc. About 1,000 49D Rabbeth spindles and sixty Lowell looms will be added in the near future and other improvements made. W. S. Phillips is president of this concern; R. A. Harrison, secretary and treasurer, and T. H. Lever, mill superintendent.

THE hosiery mill of the Commonwealth Cotton Manufacturing Co. at Durham, N. C., has lately been enlarged by the erection of an addition in which the following new machinery has been placed: 6,400 Whitin spindles, Kitson openers and lappers, Providence (R. I.) Machine Co.'s speeders and a number of automatic knitting machines. This mill is fitted in a thorough manner throughout, including sprinklers, electric lights, elevators, etc. S. W. Holman is secretary-treasurer of the company.

A DISPATCH from Augusta, Ga., says: "There is a large advance in the cotton factory stocks in Augusta. Some of the securities have advanced as much as \$20 a share in the last two weeks. The big boom in cotton, which is now bringing such remarkably large prices, is attributed as the cause of the advance of stock, because the high-price value of the staple has necessitated an increase in the price of manufactured cotton goods. The Augusta Factory stock has jumped from 75½ to 91, and is still going up. King and Sibley stocks are both up, and very little is offered for sale on the market."

MESSRS. J. G. HOOD, F. S. KNOX, J. L. Jetton, Hugh Sloan, J. Lee Sloan, Sr., and J. P. Munroe have purchased the uncompleted Virgin Cotton Mill at Huntersville, N. C. The new company has placed order for an outfit of machinery, and will endeavor to have the plant in operation very shortly.

THE fee of cotton weighers at Goldsboro, N. C., has been increased from five to ten cents per bale.

MESSRS. A. H. & W. E. COBB, of Suffolk, Va., intend to build an addition to their hosiery mill and put in a quantity of new machinery.

It is said that work will shortly be resumed on the Marble Falls Cotton and Woolen Mills, at Marble Falls, Texas.

THE woolen mill of Nicolas W. Steel at Oakland, Md., was destroyed by fire on the 12th inst. at a loss of about \$15,000. He will doubtless rebuild immediately.

THE Tennessee Manufacturing Co., of Nashville, Tenn., is starting up its No. 1 or old mill, and can furnish employment to a limited number of first-class, experienced help in card-room, spinning-room, weave-room and beaming-room, such as slubber and speeder tenders (single and double flyer), mule spinners and piecers, frame spinners, beamers and plain and colored loom weavers.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on page 411.]

The News of Wall Street.

[From our own Correspondent.]

NEW YORK, December 14.

Twenty-seven hundred thousand dollars' worth of gold by to-day's steamer into the greedy coffers of the Austro-Hungarian! A million more to-morrow. Weak Franz Josef (financially I mean) mending his fences for the coming great European war, which seems to be ready to come on the stage at any kind of a cue—"the drop of the hat," as they say out West. America sitting quietly in her office and shipping all that is needed, honoring all drafts, like the solvent young woman of business that she is. Wall street, that registers her pulse like that instrument the doctors use on a human patient, pursuing an unruffled course. Stocks buoyant in the face of gold shipments. Bears tired of predicting tight money and gold at a premium. That was the situation to-day in Wall street. There was plenty of warning that more gold would be shipped, but the traditional hammering of the market which follows every announcement of large sums of specie or bullion taken for export was conspicuously absent.

* * *

The interstate commerce commission's railroad statistics for a period ended more than a year ago are valuable and suggestive, even if they are pretty much of a back number. They emphasize one thing—a maxim that President Roberts, of the Pennsylvania Railroad, has never failed to impress upon me on each of the occasions on which he has granted me an interview. He says: "You must always remember, in calculating on the future of any American railway, that the tendency is steadily toward doing a larger amount of business at a narrower margin of profit." During one year the increase in operating expenses per mile for all the railroads in the United States averaged \$113; there was a decrease of \$38 per mile in net earnings; a decrease of a small fraction of a cent in rates per passenger per mile and per ton of freight per mile. There has been, on the other hand, an increase in the capitalization per mile, made necessary evidently by the need of facilities to do the larger business required to keep stockholders and bondholders in good humor.

Hence it is important, very important, that the railways shall have a fair chance at getting their business under such control that they can regulate it unhampered by any other authority or interference than such as is necessary to prevent them from oppressing the people and menacing the State. In this particular, then, the recent decision that the interstate commission cannot, being a branch of the executive government, a creation of the Congress, act as a judicial body, and as such appeal to the Federal judiciary as a co-ordinate and allied branch of the government to enforce its decisions, gives the railroads a distinct advantage. Where the interstate commission furthers the equities of their relations with the public, it has been my experience, the railroads have co-operated with it cheerfully and cordially. When the commission's acts or regulations have become oppressive, the railroads let the commission go up against the Federal bench and bark its shins, as it has done in this case.

Which leads to a little comment upon the emancipation of our trunk lines from the anti-pooling regulation. That has practically been accomplished by the new trunk-line arrangement. I have always maintained, while seeing one "gentleman's agreement" after another fall away into incoherence, that the forbidden pool was

the only solution of the problem. Any railway traffic manager can tell you the same thing. Now, if any railroad gets more than its apportionment it must raise its rates; that is, it is fined part of its future traffic to pay for its overplus. The new pool has its commissioner, Fink, under a less candid title. The business has been parcelled out among the railroads as rigidly as in Mr. Fink's palmist days. Sessions of the trunk-line committee need no longer be experience meetings. Rate wars may be no more heard of, and the interstate commission cannot interfere. Combination is a great thing. It's like the trusts—beneficial to the combine, not inequitable to the consumer.

See what it has done for the Reading. Facts have just been coming out to show why Philadelphia, which seems to have President McLeod's ear nearer to its telephones than New York has, has been so bullish of late on Reading. The extension of its traffic facilities into New England and to the West has added largely to its traffic. The rise in coal makes its staple of traffic larger. An estimate from a man quite close to Mr. McLeod, that I heard to-day, places the net earnings of the road for 1893 at seventeen millions. The charges ahead of the stock are about ten and a-half millions. It takes only \$2,400,000 for a dividend of 6 per cent. The assurance is given, so far as anyone can judge of human probabilities, that this amount will be so earned and so distributed. All the result of combination and a cessation of a war among coal-carrying roads, which wiped out the profit on coal-mining.

* * *

Now that railway earnings are so generally satisfactory in the North and West, I would like to see Southern traffic returns better. Compilations of recent earnings show no increases except in Louisville & Nashville and one or two others. You will notice that Liverpool markets are bearish on cotton. The feeling here seems to be that the holding back of spinners' orders is the cause of it. Here people say that the Britishers must take our cotton at our price.

* * *

The Southwestern Association has some work to do in settling rates in Texas, which are in a badly demoralized condition.

* * *

We are looking here for the details of the reorganization of the Central Railroad & Banking Co. of Georgia. The basis, as reported here on what seems good authority, is that the first mortgage 7s shall be retired by a new issue of first mortgage 5s, and that the junior liens shall be replaced at a discount by these fives, the difference between values being made good by preferred stock, the common stock to remain undisturbed. It is understood that a syndicate headed by H. B. Hollins, chairman of the reorganization committee, will underwrite the project. There is very little talk in "the street" about the Richmond Terminal and the various properties wrecked by its organized scheme of plunder and thimblerrigging, but what little I can hear is to the effect that this property, being the soundest *per se* of the lot crushed by the Virginia octopus, should soon revive. The plan, I should mention, avoids foreclosure if carried through successfully.

* * *

As I said last week, the doubling of the capital of Cordage means simply changing two-dollar bills into ones. The holder of one share of stock gets another, and the dividend is split between the two. It is merely done for convenience in trading, as it is said it ought to popularize the stock in the market. It really needs little stimulation to popularize industrial stocks, however. To-day in one hour 37,000 shares of railways were sold and 68,000 of industrials. Distilling and Cattle Feeding, or "Whiskey," as it's called for short in slip-

shod street parlance, is a leader. The company will advance rates five cents a gallon, and its friends have laid down a large amount of "quick-maturing whiskey," which will come in handy when the tax is raised by the Fifty-third Congress.

* * *

The Philadelphia bondholders of Texas & Pacific are protesting that their road is not being dealt with fairly on the Gould system. They demand a more equitable division of receipts, and there is more than a hint of trouble for "Little Wizard No. 2," as young George is dubbed. He, by the way, has settled down promptly into the harness. He began to-day by being elected president of the Manhattan Elevated lines and forming a committee to head off the utopian metropolitan rapid transit scheme prepared by a city commission calling for an expenditure of at least \$100,000,000 by the company which bids highest above \$1,000,000 for the franchise. Mr. Gould's plan as outlined to me is to make an alternative proposition to the city, viz: "If nobody offers to build your rapid transit road we have ready plans for the extension of the Manhattan Elevated to all parts of the city. No one else has enterprise enough to do it, and we have already the nucleus of the system. We will take you to any part of the city on our own lines, whereas, if you give the privilege to another, the passenger will have to pay tribute to two companies." Since the city is bound to double its population in another two decades, you will readily see how rich a prize Manhattan "L" has almost within its grasp.

Intra-mural transportation, by the way, is on the boom. Every day we hear of one of the two or three syndicates that are reaching out for street railways having landed another prize. This is a good thing. The syndicates' railroads are managed by experienced street railway men. Where there are many disconnected lines they weld them into one system, with convenient and cheap transfer privileges. They improve the equipment, introduce trolleys and cables or increase the rapidity of transit. That makes suburbs grow, and also dividends on the stock. Combination, as I have said before, is—but I refrain.

Railroad Notes.

THERE will be completed another independent route between Houston and Galveston, Texas, on or about May 1, 1893. The frequently-stated intentions of the Southern Pacific to make Galveston its deep-water terminus may, it is thought, be carried into effect by some arrangement with this new road. The Missouri, Kansas & Texas is also looked upon as likely to entertain a similar project.

LEGAL proceedings will likely be instituted to break the lease of the Port Royal & Augusta to the Georgia Central and to place the property in the hands of a receiver. This is in line with the action of Governor Tillman, of South Carolina, in urging the legislature of that State to take steps towards preventing the continuance of the Central's control of their property.

THE present session of Congress will have under consideration the bill authorizing the Norfolk & Western to enter the city of Washington. The bill will be strongly endorsed and its passage will be actively urged.

IN accordance with the determined policy to largely increase its equipment, the Norfolk & Western has, it is understood, awarded contract for 1,000 freight cars.

A HANDSOME new freight depot, two stories, 300x43 feet, of brick and granite, is approaching completion at Lynchburg, Va., for the Chesapeake & Ohio.

THE Cincinnati, Hamilton & Dayton Railway has about completed the work on the transfer incline just above Ironton,

Ohio, by which, through an arrangement with the Ashland Coal & Iron Railway, it will extend its freight and passenger service to Ashland, Ky., over the same incline on which the Norfolk & Western enters the city. This will give Ashland another outlet to the North and West.

J. P. WILLIAMS has been elected president of the Middle Georgia & Atlantic, succeeding William Garrard, who was elected president provisionally last winter. The completion of the line from Eatonton to Covington will probably be pushed.

THE reorganization committee of the Charleston, Cincinnati & Chicago, which some time since purchased the Tennessee portion of the road, has applied for a decree for the sale of that part of the line outside of Tennessee. It would require three months to advertise the property before a sale, and the plan is to buy it and arrange for the resumption of work, which could not be before April of next year.

THE Georgia Midland & Gulf Railway Co., at the recent stockholders' meeting, instructed T. C. S. Howard, the secretary, to take up the 6 per cent. bonds of the road with a new issue bearing interest at 4 per cent.

A. M. COOKE, an efficient railroad manager, has, owing to the amalgamation of the Louisville, New Orleans & Texas with the Illinois Central, resigned his position as assistant general manager of the former road.

It is believed that the Kentucky & Indiana Bridge Co., which owns a railroad bridge across the Ohio river at Louisville, Ky., will soon conclude a lease of its property with the Baltimore & Ohio.

C. B. WILBURN, for a number of years general freight agent of the Georgia Southern & Florida, has resigned and accepted a similar position with the Savannah, Americus & Montgomery.

THE annual meeting of the Georgia Pacific Railway Co. was held in Birmingham on December 10. Only routine business was transacted, and the old board of directors was re-elected. It consists of Joseph Bryan, of Richmond, Va.; John G. Moore, W. H. Perkins, J. A. Rutherford, W. P. Clyde, J. C. Mahen, W. G. Oakman and Robert Jemison. Mr. Bryan is the president.

D. B. ROBINSON, president of the San Antonio & Aransas Pass Railroad, has tendered his resignation to the board of directors, to take effect January 1. After that time he will make his headquarters at Chicago, and give his entire time to the Santa Fe, Prescott & Phoenix, a new road in Arizona Territory.

THE Cheraw & Darlington, which purchased the Cheraw & Salisbury at public auction on November 30 for \$50,000, owned a majority of the bonds and stocks. The line runs from Cheraw, S. C., to Wadesboro, N. C., and inasmuch as a survey has been made, will probably be built by the Atlantic Coast Line from Wadesboro to Winston.

THE work of building the freight yard, coaling station and repair shops at Rocky Mount, N. C., for the Atlantic Coast Line will be entirely completed this month.

THE Louisville & Nashville has commenced using a large and commodious new freight depot at St. Louis, Mo. The building is 570 feet long with forty-two receiving and delivering doors, and is equipped with four hydraulic elevators.

THE gross earnings of the Parkersburg branch of the Baltimore & Ohio for the nine months ended June 30, 1892, were \$614,048.52, expenses \$532,149.30 and net earnings \$81,899.22.

MECKLENBURG COUNTY, N. C., will petition the legislature for authority to sell the county's stock in the Atlantic, Tennessee & Ohio, which is said to have a market value of about \$66,000.

mining phosphate rock and phosphate deposits in the navigable streams and marshes of the State. The royalty is not to exceed \$2.00 per ton.

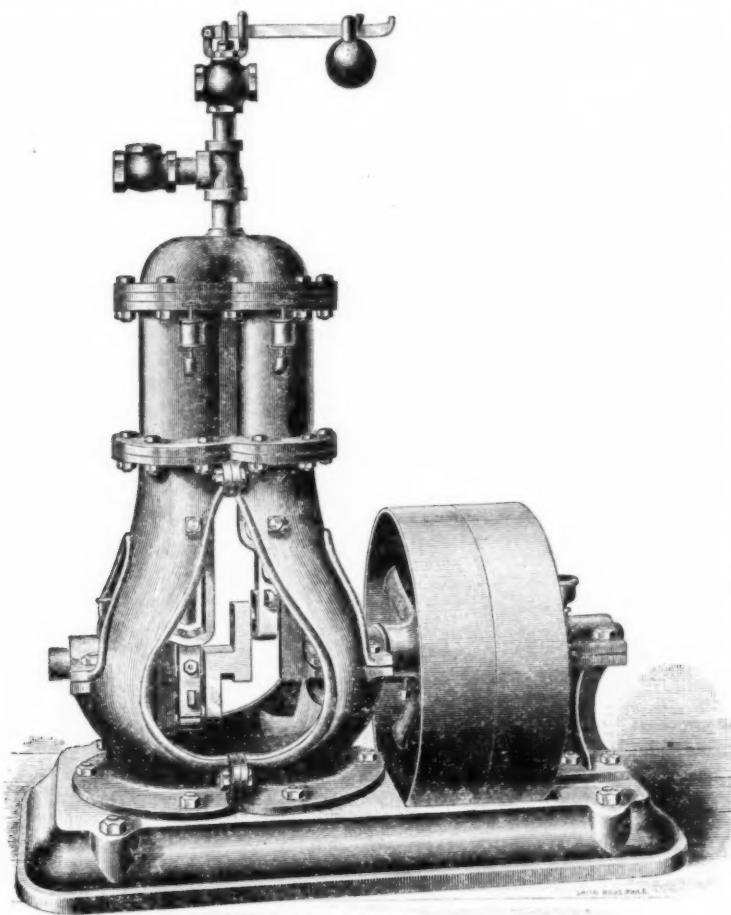
COL. MASON YOUNG, receiver of the Florida Southern, accompanied by Acting-Superintendent Denham and others, arrived at Bartow, Fla., on the 7th instant, from Punta Gorda, by special train, to visit the Terrace Phosphate Co.'s extensive works. The court has allowed Receiver Young \$200,000 to be expended in making the Florida Southern a standard gauge road from Arcadia down, work to begin at once. Orders have also been issued to commence laying track on the extension to deep water below Punta Gorda. This will lessen light-erage for phosphate shippers and allow this road to successfully compete with Port Tampa rates.

THE famous Oak's plantation, St. James, Goose creek, S. C., was sold at auction last week under a decree in equity in the case of the Carolina Savings Bank versus the Mead Phosphate Co. The property was

Air Compressor for Moving Acids.

To handle acids and other fluids conveniently, safely and with economy in labor are important and necessary requirements in all establishments using them. The accompanying illustration shows a new machine for this purpose which has just been completed by C. H. Dempwolf & Co., of York, Pa. This firm has long made a business of manufacturing fertilizing machinery, and this acid blower has been constructed with a view of giving to fertilizer factories a machine which was simple and efficient.

The compressor is run by a belt, and has both tight and loose pulleys. There are two cylinders and a double crankshaft, by which arrangement a steady flow of compressed air is produced and delivered without jar or undue strain on the driving belt. The machine is constructed in a compact and durable manner and presents a neat appearance. Its capacity may be varied from five to ten tons of acid per hour, according to the density, size of delivery pipes and elevation to which it must be



AIR COMPRESSOR FOR MOVING ACIDS.

purchased by George Williams for \$40,000. The Mead Phosphate Co. has had possession of this property for several years. As a phosphate deposit its resources are considered among the most bountiful in the State.

THE annual meeting of the Navassa Guano Co. was held at the company's office in Wilmington, N. C., on the 7th inst. After the reading of the reports of officers and the transaction of the usual routine of business, the following officers were elected: For directors, William H. Crawford, J. I. Middleton, Smilie A. Gregg, George W. Kidder, D. G. Worth, Frederick L. Grafflin and Donald MacRae. David G. Worth was elected president; William H. Crawford, vice-president; manager, secretary and treasurer, Donald MacRae, and superintendent, Charles E. Borden. A dividend of 6 per cent. was declared.

MESSRS. WHITEHURST & SMITH, of Roanoke, are working an iron mine on the Lunsford property, near Coyner's Springs,

forced. Acids and all similar liquids are easily moved and elevated by compressed air, and for the former especially there is no better or more convenient method of handling from railroad tanks and stationary storage tanks to such point in the factory or elsewhere that they may be required.

THE Blue Ridge Terminus Fruit-Growers' Association has recently been organized at Cuthbert, Ga., by J. M. Rawles, L. E. Key, G. D. Webb, S. T. Jenkins, Arthur Hood, R. L. Moye and others. The officers elected are: President, G. M. Rawles; vice-president, L. E. Key, and secretary and treasurer, G. D. Webb. The object of the association is to encourage mutual interest and protection among the fruit-growers of Southwest Georgia. This year marks greater development of fruit culture than ever before, and several hundred acres of new land have been planted. Fruit men have all been successful so far, and some have netted large sums of money. The association will still further stimulate this work, and will prove of great value.

GENERAL NOTES.

Brief Mention of Various Matters of Current Interest.

PROMINENT merchants and railroad officials of Charleston, S. C., are agitating the question of building a grain elevator at that port. The accomplishment of this scheme seems more probable than at any previous time, and further efforts to attract Western grain to that port will be made at once. Railroad authorities announce that lines operating in Charleston are heartily in sympathy with this undertaking, and would co-operate with the projectors. When the building of an elevator is fully assured such traffic arrangements from Western points will be established at once as would command the receipt of an abundance of grain at that port.

PARTIES in Leavenworth, Kansas, have written to the Board of Trade of Macon, Ga., asking what facilities were offered in that city for a canning factory. It would be the intention to can both fruits and vegetables, keeping the factory in operation throughout the year. The advantages for such a business in and around Macon are so apparent that the factory will undoubtedly be secured. A hosiery company in New York State has also written regarding the location of a plant for the purpose of manufacturing all kinds of hosiery and running a spinning mill. The letter stated that there was an abundance of capital, and what was wanted was a knowledge of the conditions there and whether land would be given for the purpose. Capt. R. E. Park, of Macon, has offered to donate all the land needed for this or other manufacturing concerns. His land is at Holton, eight miles from Macon, and on the line of the East Tennessee Railroad.

MR. S. H. PAGE, of Bartow, Fla., has been most successful in raising oranges without the use of fertilizers. This season his trees are in remarkably fine condition and loaded down with excellent fruit. On all the forty acres on which his grove grows he has never used a pound of commercial fertilizer, and the only stimulant the trees have ever received is from cow manure. He has thoroughly sprayed the trees with Bean's insecticide and found it to be most efficacious in preventing scale. Recently Mr. Page sold his entire crop on the trees for \$3,000. Some of the trees will run twenty boxes, and the average of the grove will be quite fifteen boxes to each tree. The arrangements for handling the fruit are excellent. A large packing-house with an orange sizer and other necessary appliances is in one corner of the grove, and all so placed as to enable the work to be done methodically and rapidly. Mr. Page has made his property a valuable one in less than ten years, and has shown what hard work, even with limited means, may accomplish in Florida.

Now that the Florida orange crop has commenced to move, there is a good deal of anxiety among the growers as to prices. During last year, when the crop exceeded 3,750,000 boxes, and there was a large fruit crop in the North, the average price realized was only a little over \$1.00 per box. This year Northern fruit is not so abundant, and the Florida crop will not exceed 3,000,000 boxes, so an average of at least \$1.50 is expected. At present extra choice fruit is selling at \$3.25 in Jacksonville, and good prices are being secured from all points. Several thousand boxes a day are being handled in that city, and the receipts will probably increase until January.

As a point for the storing of and convenient shipment of cotton to supply the North Carolina mills, Goldsboro, in that State, is admirably situated. It practically holds a central position in this respect and

enjoys good railroad facilities. The storage of cotton is now an important feature of the city's business, and one concern, the Goldsboro Storage & Warehouse Co., which has three warehouses used for this purpose, is completing three more that will give it a total storage capacity of 10,000 bales.

THE local compress at Waco, Texas, recently compressed 1,346 bales of cotton in nine hours and five minutes. This they claim beats the world's record, heretofore held at Galveston, where 1,232 bales were compressed in ten hours.

It is said that a New York syndicate intend buying the Ocean View property and hotel near Virginia Beach, Va., and will make extensive additions and improvements for the coming season. The price named is \$100,000. During last season both this hotel and the Princess Anne at Virginia Beach were crowded with guests, and many who went there were unable to secure accommodations.

The Salem (Va.) Register says that a Floyd county farmer recently brought into Salem a wagon loaded with barrels of cranberries grown in a swamp on his farm, less than twenty miles from Salem. In flavor, size and appearance they compare favorably with the Cape Cod cranberry. Surely this berry might be profitably and more widely cultivated in this section.

THE Charlottesville (Va.) Land Co. recently sold the "Kennedy" property, lying south of the University grounds, for \$8,000. This tract contains fourteen acres, and was bought by the company shortly after its organization.

THE citizens of Corpus Christi, Texas, held a meeting on December 8 to discuss the question of deep water. Speeches were made by a number of prominent people, and Judge Bethel Coopwood, of Laredo, promised that the latter city would co-operate with the efforts of Corpus Christi in opening Ropes Pass. W. L. Mesmer, of San Antonio, agreed to donate one-half of his property in Corpus Christi to any company which would take up the work and complete it. An executive committee was appointed to see what bonus could be secured from other property owners and the meeting adjourned.

A REPORT from Clarksville, Tenn., says that unusually good prices are being received for all the tobacco grown in that section. E. C. Morrow recently purchased 75,000 pounds in Rudolphon at an average of nine cents, the highest for any being eleven cents. The farmers are greatly elated at the outlook and are hurrying all their tobacco to town.

THE Standard Oil Co. has determined to make Bristol, Va., a distributing point for all oil sold in that district. The territory to be supplied is all that lies within seven-five miles of the city. The tanks and warehouses are now under construction and promise to be very extensive.

It is said that extensive deposits of asphaltum of superior quality have been discovered near Homer, Ky., and that Eastern capitalists have secured 1,000 acres of land for immediate development. A railroad to the mines is proposed from Russellville.

IN Lynchburg, Va., the tobacco warehouses are unusually busy, and high prices are being secured at nearly all sales. Some shipping grades recently brought \$13.75 per hundred, and dark grades command a correspondingly satisfactory price. Very little bright tobacco is being offered, but the figures which it realizes are highly gratifying. Farmers are bringing their tobacco in steadily, and as a consequence merchants state that the volume of business is particularly good, and the holiday trade promises to be unusually heavy.

Manufacturers' Record.

PUBLISHED EVERY FRIDAY BY THE
Manufacturers' Record Publishing Co.
MANUFACTURERS' RECORD BUILDING,
Lexington and North Streets,
BALTIMORE.

EDWARD H. SANBORN, Managing Editor.
THOMAS P. GRASTY,
Special Southern Correspondent.

WESTERN OFFICE—535 and 537 The Rookery,
Chicago, Ill.
CLARENCE P. DAV, Manager.

NEW YORK OFFICE—126 Liberty Street,
F. W. ROLLINS, Manager.

NEW ENGLAND OFFICE—952 Exchange
Building, Boston.
S. L. CARPENTER, Manager.

FOREIGN AGENT—REUTER'S TELEGRAM CO.,
LIMITED, London.

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The first issue in each month will be mailed for One Dollar per year to subscribers in the United States, or Eight Shillings to foreign countries in the Postal Union.

BALTIMORE, DECEMBER 16, 1892.

Notice to Advertisers.

The last forms containing advertisements are closed on Tuesday afternoon. New advertisements or changes should be received not later than Tuesday noon to ensure attention in the issue bearing date of the following Friday. Reading matter should be in our office on Wednesday, although late news can be received early Thursday morning.

It is interesting to note that Alabama, standing fifth in the ranks of coal-producing States in the order of quantity mined, stands third in the list in the order of tons mined per square mile of coal territory. Taken in the order of production, Pennsylvania comes first with 9,000 square miles bituminous coal territory and a production of 42,302,173 tons, Illinois follows with 36,800 square miles coal territory and a production of 15,292,420 tons, Ohio comes next with 10,000 square miles and 11,494,506 tons, West Virginia next with 16,000 square miles and a production of 7,394,494 tons and Alabama next with 8,680 square miles and a production of 4,090,409 tons. In the order of tons mined per square mile of coal territory Pennsylvania leads with 4,700 tons per square mile, Ohio follows with 1,149 tons, Alabama next with 471 tons, West Virginia next with 464 tons and Illinois last with 415 tons.

THE announcement that the Elyton Land Co., of Birmingham, Ala., will close up its business and merge into the Elyton Co. will not surprise those who have noted the company's actions during the past two years. This move has been on foot for some time, and its successful consummation means much for Birmingham. The capital stock of the old company was \$200,000, at one time quoted at \$15 per share, and only a few years afterward at \$4.50 per share. Enormous dividends were paid out, aggregating in one year, 1887, \$4,610,000. It is to the efforts of this company that Birmingham owes its prosperity. Dur-

ing the financial troubles in the past two years the company has made little effort toward further extension, and it was at this time that the plan of reorganizing was broached. The new company will have a capital of \$10,000,000 in 100,000 shares of \$100 each. Its powers are as broad as those embraced in the charter of the former company, and it is understood that as soon as its affairs can be put in order there will be some extensive developments undertaken.

The Alabama Geological Survey.

The apportionment committee of the Alabama legislature has been making a strenuous effort to reduce expenditures for the coming year, and in the bill now before the house there is one item the wisdom of which is questionable, that is, reducing the appropriation for the geological survey one-half, with a prospect of its being cut out altogether. During 1890 an appropriation of \$10,000 was made for carrying on this valuable work, and this amount was expended in such a way as to give the best returns. What work has been done is of the utmost value, and promised well for what we hoped was to come. This has only been the commencement, however, leaving the broader and most important part yet to be done. During last June, when a bill was before the Kentucky legislature, and afterward passed, by which the geological survey of that State was abolished, we pointed out the error of such a step, and showed the value of a complete survey to the State. What we then said applies with even greater force to Alabama, because this State is the leader in mineral production in the South, and if it is to retain this position it is not only desirable but necessary that there should be an official and authoritative publication showing what and where its resources are. This would show prospective investors at what points and in what lines further advantageous development could be accomplished, and would do more to make known the State's natural wealth than any other course which could be followed.

In Kentucky it was only after the geological survey had given much attention to the coal fields in the eastern part of the State that their real value was appreciated, and since that time many thousands of dollars have been invested there. The same is true of many other places where surveys have been made. Another point about a complete geological survey of a State is that it affords a sure means of discountenancing exaggerated reports on the resources of any section, and in that way is invaluable to the investor who might otherwise be induced to spend large sums of money on land worthless for the purposes intended. A complete survey, giving thorough treatment of the State by counties, would undoubtedly bring to light much which is not now known as regards the mineral and other resources. We cannot too strongly decry any attempt to stop the work which has begun, or too strongly urge its continuance, and this on a larger scale than the appropriations hitherto allowed have permitted. Our Southern States have been too backward in this matter, and for Alabama, which was supposed to be one of the most, if not the most, progressive in

industrial development, to take such a step as proposed, would be a sign rather of retrogression than of the steady advance which should characterize every Southern State.

The Coming Rice Crop.

From all estimates the rice crop now coming in promises to be the greatest ever grown in this country. Fortunately the consumption is still considerably in advance of the production, so there is little danger of any further depreciation in price than has already been experienced. The drop in market prices thus far has been entirely due to the haste with which planters have rushed their crop in, and is sure to recover later in the season. Our total consumption for this coming year is estimated at a minimum of 250,000,000 pounds, and the highest estimates on the present crop do not exceed 225,000,000 pounds. This would leave 25,000,000 pounds to be supplied from abroad, and as this cannot be profitably imported and sold for less than four to five cents, depending upon quality, there does not appear to be any foundation for the prices ruling now, two and three-quarters to four and a-half cents, other than that given.

In this connection it is interesting to note that heretofore the greatest crop grown was in 1850, when the yield was 215,313,497 pounds. The producing States were: Alabama 2,312,252 pounds, Arkansas 63,179 pounds, Florida 1,075,090 pounds, Georgia 38,950,691 pounds, Kentucky 5,688 pounds, Louisiana 4,425,349 pounds, Mississippi 2,719,856 pounds, Missouri 700 pounds, North Carolina 5,465,868 pounds, South Carolina 159,930,613 pounds, Tennessee 258,854 pounds, Texas 88,203 pounds and Virginia 17,154 pounds. In 1860 Kentucky dropped out, but California, Michigan and Minnesota produced small quantities, the amount in pounds by States being Alabama 493,465, Arkansas 16,831, California 2,140, Florida 223,704, Georgia 52,507,652, Louisiana 6,331,257, Michigan 716, Minnesota 3,286, Mississippi 809,082, Missouri 9,767, North Carolina 7,593,976, South Carolina 119,100,528, Tennessee 40,372, Texas 26,031 and Virginia 8,225, a total of 187,167,032 pounds. It will be noted that in this year the production in Georgia, Louisiana and North Carolina was considerably greater than in 1850, while in the other States it was much less. In 1870 the crop was exceedingly small, amounting to but 73,635,021 pounds, the production in pounds by States being Alabama 222,945, Arkansas 73,021, Florida 401,687, Georgia 22,277,380, Louisiana 15,854,012, Mississippi 374,627, North Carolina 2,059,281, South Carolina 32,304,825, Tennessee 3,399 and Texas 63,844. In Arkansas, Florida and Louisiana the crop was greater than in 1860, but in all other States it was less, particularly marked in South Carolina, where the difference in production between the two periods was 86,795,703 pounds. During 1870 the imports of foreign rice amounted to 43,123,939 pounds, and exports to 17,345,847 pounds (domestic 2,133,014 and foreign 15,212,833), leaving for consumption 99,413,113 pounds. In 1880 the production had increased to 110,131,373 pounds, Alabama giving 810,889, Florida 1,294,677, Georgia 25,369,687, Louisiana 23,188,311, Mississippi 1,718,951, North Carolina 5,609,191, South Carolina 52,077,515 and

Texas 62,152. This shows a marked increase in the yield from every State excepting Texas, which was a very little below 1870. During 1880 the imports were 51,943,609 pounds and exports 8,666,929 (domestic 183,534, foreign 8,783,395), leaving 154,108,053 pounds for consumption. In 1891-92 the total crop was about 150,000,000 pounds, South Carolina supplying 27,183,900, Georgia 12,005,700, North Carolina 6,697,800 and Louisiana 103,360,800. During this season the imports amounted to 125,263,163 pounds and exports 8,454,877 (domestic 340,620 and foreign 8,114,257), leaving 266,808,286 pounds for consumption. These figures do not include imports of rice flour or broken rice, which amounted to 81,259,519 pounds in 1891.

Georgia Central Reorganization.

The affairs of the Georgia Central have progressed favorably to such a point that the plan for reorganization will soon be ready for official announcement. Those in touch with its affairs have held that it was impossible to readjust its finances without reorganization. It was absolutely essential—first, to provide for the floating debt, as it was secured by the hypothecation of securities which, if sacrificed, would have ruined and bankrupted the system; second, to provide for the maturing 7 per cent. tripartite bonds falling due in January, 1893, and third, to provide means for improvements in roadbed and equipment, which of late had fallen below standard requirements. Circumstances were such as to render impossible the making of such a bond as would accomplish these objects without a complete rehabilitation. The condition of the property, its requirements and lessened business were familiar to the public, and in order to obtain the needed funds it was plain that the character of any new securities must be such as to assure their being taken up by bankers and investors.

It is proper to remark that one of the main causes of the decrease in the net earnings is the hostile action of the Georgia legislature and juries. The fear of inimical legislation is again thrown in the way of the reorganization committee by the present hostile attitude of the Georgia assembly, and is practically the only obstacle to their full success.

The reorganization will better unify the system, and will put it in such a position by reason of lower fixed charges, that it can defend itself in all future circumstances without any abridgment of its service. The new securities of the system will be a new 4 per cent. first mortgage bond on the whole property, a preferred stock and common stock, and the distribution of these securities will be in the interest of the present holders. The advantage of this arrangement is, that if the present earning capacity is maintained they will suffer very little, if any, loss of principal or interest, and with an increase of the net earnings, of which there is every probability, they will reap the benefit. By this plan the control of the system will go into the hands of the present security holders, embracing all the bondholders, etc., and this control is just what seems needed at present to restore confidence in its management. The holders of pres-

ent securities will also probably have the alternative of taking cash if preferable to new securities for their present holdings, as an underwriting syndicate is proposed. On the whole, the plan as outlined appears an equitable one, and with the high character and prominence in the financial world of the men who are back of it, success seems assured.

Anti-Railroad Sentiment in the South.

The greatest danger, in fact the only serious trouble, which now threatens the welfare of the South is the anti-corporation sentiment which is being encouraged by the granger element, now rampant in three or four of the Southern States. The hallucination of the corporation octopus, which constitutes the chief bugaboo of the agrarian element, has attacked several Southern legislatures in a virulent form, threatening to work an incalculable amount of damage to vast interests in which millions of dollars are invested, and in which the welfare of the people is largely founded. As usual, the railroads are the object of attack, despite the lessons taught by foolish legislation in Texas, Kansas, Iowa and other States in which attempts have been made to conform railroad management to the crude theories of granger politicians. It is strange that disaster teaches no lesson, except to the interests which are wrecked. It is strange that legislators will not recognize that the railroads are the greatest constructive factor that exists in our modern civilization. It is strange that law-makers are blind to the fact that the interests of the railroads and the people are inseparably interwoven. It is astonishing and deplorable that there should exist a belief that the welfare of the public can be assured only by giving to irresponsible men absolute authority over vast railroad interests in which they have not a dollar invested, and about the management of which they have no practicable knowledge. Strange, indeed, are these conditions, and yet they exist and are spreading.

These reflections are prompted by railroad measures that are now pending in the legislatures of South Carolina, Georgia and Alabama, the passage of which means immeasurable injury to Southern railroad interests. The Wilson railroad commission bill, which is now in the South Carolina legislature, has been characterized by a prominent Southern railroad president as "a scheme of confiscation under form of law." This bill gives the railroad commission power to fix passenger rates, the power of the commission at present being limited to freight rates. There is also added to the powers of the commission the right to fix joint rates between different railroads for both freight and passenger traffic. Another provision gives the commission power to require the erection of depots and station buildings at the pleasure of the commission, the present law only authorizing the commission to examine into such questions and recommend to the railroad companies, in case of their non-compliance the attorney-general being called upon for such legal action as may be available. The Wilson bill gives the commission power to require the running of such schedules as the commission may consider proper. In ad-

dition to these seriously objectionable features, the bill makes the initial or receiving railroad responsible for all freight taken by it, no matter where the loss might take place.

The railroad measures pending in the Georgia legislature are of a somewhat different character, being obstructive rather than destructive in their probable effect. Major A. O. Bacon, who has introduced a series of bills designed to remedy existing railroad evils, is a gentleman who has long been prominently before the Georgia public, and he is evidently acting with an honest desire to remedy defects that appear to him, but the enactment of the laws he has framed would create evils far more serious than those which he aims to remove. One of these measures, as passed by the House of Representatives, requires the builders of a railroad to pay into the company 15 per cent. of the value of the road before the issuing of any stock. The obstructive effect of such a law would amount to virtual prohibition of new railroad enterprises. Another of Major Bacon's bills is designed to prevent wrecking of railroads by making such an act a felony, punishable by fine and imprisonment. Although worthy in its aims, this measure lacks practical value, inasmuch as the wrecking of a railroad is an exceedingly indefinite performance, and the fastening of the guilt for such an act is more difficult than the imposition of punishment on culprits, when found, under conditions now existing. A third bill which Major Bacon has introduced enlarges and defines the powers and duties of the railroad commission relative to the supervision of the schedules of railroad companies, the physical condition of the railroads and inspection of same, the investigation of the cause of accidents on railroads, the examination into violations of law by railroad companies and into the control of railroads in the State by foreign corporations, the fixing of just and reasonable rates of charges for transportation of freight and passengers, and for other purposes.

It appears that Major Bacon has undertaken a very comprehensive task, amounting virtually to a complete reformation of railroad management in Georgia, but however honest his purpose may be, there is an absence of practical elements in his bills and a disregard of the rights of the railroads which render impossible the fulfillment of his plans.

The Alabama legislature is wrestling with the railroad problem and endeavoring to devise means by which the railroad companies can be deprived of the control and management of their own property. One of the measures under consideration provides for a railroad commission composed of a lawyer and two experienced railroad men, at a salary of \$2,500 each per year, who are to have power to arrange schedules of freight and passenger rates at their discretion. Another pending bill makes it unlawful to run any freight trains on Sunday in Alabama under penalty of a fine of \$100 for first offence and \$500 for each subsequent offence within the same year. Other measures that have been introduced prohibit pooling and combinations for increasing freight or passenger rates. There is sufficient evil in the several measures under consideration by the Alabama legislature to

indicate that some very radical and pernicious sentiments exist in that body.

Apart from the specific evils that exist in the various bills we have outlined, there is a greater harm, and one which we more deeply deplore, in the sentiments which they indicate as actuating Southern legislators. These measures demonstrate the existence of a bitter hostility to railroads on general principles, an enmity that has no redeeming features, as it rests upon a basis that is false in every respect. The railroads are not natural enemies of the people, but their best friends and strongest allies. The West was settled and built up by the railroads, and those communities that have sought to strangle their creators have wrought their own ruin. The bitterest enemies of the railroads to-day are the farmers, the class whose debt to the railroads is greatest. Without the aid of the railroads our agricultural interests would be helpless and hopeless, and yet it is from this source that the loudest cry of complaint issues.

In these attempts to enslave and harass the railroads the South is confronted by a very grave danger—one which has its examples in the West. We earnestly hope for the supremacy of common sense in this critical period into which rampant grangerism is now forcing the South.

Savannah's Harbor a National Benefit.

By Col. L. W. Avery.

Savannah enjoys one advantage that no other South Atlantic seaport has which is of great value to ship owners. The city is upon fresh water, and vessels never have to dock to clean bottoms, the fresh water doing this and saving this expense.

In salt-water ports barnacles form, affecting speed; vessels of iron or steel corrode; wooden ships are destroyed by the ship worm, and wooden docks are rapidly perishable, requiring stone or other costly material. Fresh water obviates all these evils.

The harbor of Savannah is the Savannah river from Tybee Roads to the city, eighteen miles, with a continuous draught of from twenty-one to twenty-two feet on a single tide at mean high tide from the city to the sea.

The wharf frontage is five miles, with ten miles more available in the city limits, and the whole water front on both sides of the river from the city to the sea can be made available if needed. The anchorage, with twenty-six feet depth and upward, comprises 1,861 acres; that under present plans will be enlarged to 2,328 acres.

The city of Savannah has now superb and commodious dock and wharf facilities capable of all necessary expansion, the Central Railroad plant affording imperial conveniences for colossal shipping, with admirable approaches.

The harbor is noted for its immunity from storms. The river water is famous for its excellence, purity and keeping qualities, and can be indefinitely carried in ship holds without deterioration, and is in universal demand among the ship men.

The ocean bar is one of the best on the South Atlantic coast, and the bar channel has not sensibly changed in a hundred years, there being twenty-six feet at high tide.

The commercial importance of Savannah, the especial trade and transportation advantages she has by nature and the tremendous growth and colossal future of the commerce between the South and West, demanding an adequate Southern outlet, made it a national necessity that the Savannah harbor should be deepened for vessels of large draught.

In response to this despotic demand of the needs of national and international trade came urgent and specific appeals to the United States Congress from thirty-seven of the forty-four States of the Union through their governors, city councils and boards of trade and chambers of commerce to make sufficient appropriation to secure deep water at the port of Savannah for the special development of an absolutely needed South Atlantic port for the general good.

It was a striking tribute to Savannah's commercial value that she should have been selected for this substantial distinction, and it was a magnificent recognition of her importance and advantage that, under request from the people and trade bodies of a large majority of the States of the Union to their representatives in Congress, the large sum of \$3,500,000 was appropriated to deepen her harbor to the necessities of continental commerce. The movement that resulted in the great culmination was masterfully conducted by the president of the Savannah Board of Trade, Capt. D. G. Purse.

The work has been begun on a scientific and well-digested plan by United States Engineer Capt. O. M. Carter, with the object in view to secure a continuous depth of twenty-six feet from the city to the ocean after a full examination of all the difficulties in the way. The initial appropriation of \$350,000 has been given, to be followed by other sums as rapidly as needed.

In the meantime Southern direct trade has begun with foreign countries on a partial scale that is steadily progressing to completeness.

Business Improvements in Harriman.

HARRIMAN, TENN., December 12.

Editor *Manufacturers' Record*:

Ending with December 10, replies from the various interests of Harriman show the following as compared with the corresponding week in 1891: There is a large increase in population. Lumber sales average about the same. Manufactories report a large increase in orders, with an average of better prices than obtained in November. Better sales are reported by our merchants. The banks show nearly a third increase in deposits, which are now larger than ever before in the history of the city. Local stocks and bonds command better prices and are active, while sales and inquiries for real estate are increasing rapidly. Collections are better than for several months, and the general financial outlook is most promising. ALFRED E. P. ROCKWELL, Secretary Chamber of Commerce.

Anti-Corporation Grangerism.

CHICAGO, December 12, 1892.

Editor *Manufacturers' Record*:

As usual, I read with much interest your last number. Being largely identified with Southern enterprises, everything appertaining to the South interests me. While you call, at all times, attention to the great advantages of the South, might it not be proper to speak in your paper about the serious drawback to that section of our country caused by adverse granger legislation?

Attempting recently to procure financial assistance for a most meritorious, badly-needed Southern railway extension, I found that such granger legislation made all one's efforts in that line futile.

Reporting such facts to my Southern friends, one of them, prominent in the South for his unceasing efforts to develop his home State, writes in reply:

"So long as we of the South are cursed with Tillmans, Watsons and such demagogues, we cannot expect capital to come to us. Our only hope seems to lie in the probability that, like every other mania, this agrarian folly will run its evil course and die." A. W. SWANITZ.

MECHANICAL.

Notes on Machine Shop Practice.

By Albert D. Pentz.

The reaction in favor of practical men which is noticed in some quarters is a necessity, and its origin is in the balance-sheet. Practical mechanics get better results than theorists, and profit is the criterion of success. The present is a time for the sincere friends of technical education to discuss the mistakes that have been made, so that they may be avoided in future. Technical knowledge is not taught in schools alone, but practice is taught only in the shop. Hence a man with practice can, if studious, get what theory is necessary to him in one line from a very few dollars' worth of books, and during the same period in which he assimilates his practice. The technical man in most schools cannot get any considerable practice. In fact, in some schools practice is discountenanced. An Ohio professor is reported to have said that practice is of no use unless it is to prepare a man to be a foreman or a superintendent. Let us ask him what is the real value of an expensive education if the practical fellows are to have the management and the salaries. This disregard for practice is the greatest of mistakes, for the theorist alone cannot design practical machinery. Upon discovering this fact, some manufacturers have gone back to the old principle of employing practical designers and hiring a cheap draughtsman, "a technical graduate preferred," to do the pictures. Would it not be better if the schools should teach perfect practice, so that that graduate could stand on his own feet? Another mistake made by some graduates has been the ignoring by them of advanced practical men who could have assisted them, and whose natural jealousy should have been prevented or overcome. The graduates in some cases have gone alone, and as a consequence their mistakes have been enlarged on and their successes have been depreciated by shop men. It is possible that the efforts to subordinate may have operated inversely.

INDEPENDENT of perfecting the planes of sliding surfaces on cast iron and steel, scraping in the usual manner hardens them by burnishing to an astonishing degree. Hence, even if an expert mechanic and a fine planer should be able to make two sliding parts fit together with smooth and true surfaces, it is economy to scrape them for the improved density to which that practice refines such surfaces. It is probable, however, in the evolution of tools, that means to get this condition of surface will be accomplished eventually on the planer or milling machine, and it seems probable that this will be accomplished about as soon as means are found to secure work to tools in such a manner that its elasticity will not be disturbed, so that a job of work will retain the shape to which it is machined after it is relieved from the holdings.

EVERY mechanic should fully realize that no reliance can be placed on the measurements of sizes or distances indicated on any caliper or gauge used in any place whatever where the precision is required to be absolute to standard rather than comparative to the means employed to indicate such standard. Such variations in ordinary machine shops may equal or exceed 0.005 of the size indicated, and this variation may be proved and should be tested by every practical man. Suppose that a vernier gauge having twelve inches capacity be held at its widest opening between two parallel pieces of equal length in a vise, and a rod about one-quarter inch in diameter be fitted to it so that it just fills to touch the gauge and no more, the rod being freely handled to warm it; then if

the vernier gauge be removed from the vise and the rod be substituted for it between the parallel pieces, the gauge being now freely handled to warm it, the length of the rod will be found to indicate much shorter, perhaps by one-hundredth of an inch.

EVERY practical man is often asked by persons in other professions as to the advisability of having their sons taught, and, if a trade, what trade? Now, no matter what may be the social development of the near future, whether the present order of society shall be conserved or a new order shall be inaugurated, it is advisable that every boy shall be able to support himself by his hands, and do it as well as he can, by having them trained to the greatest skill they are capable of acquiring; for, if there be no change in the order or classes of society as they now exist, there may be changes in the circumstances of the individual, so that one who to-day adorns the summit of the highest class in society may next year disgrace the calling of a beggar by a failure to make it support him. This condition is of such frequent occurrence that it may be said to stand across the future of every man as rather more than a possibility. Hence, if a man were master of any modern trade no circumstance could fall upon him hard enough to crush him. Therefore, a trade should be considered a necessity to any man in any condition. The trade to teach a boy is often difficult to decide, but to the right boy the machinists' trade is the best, for in the future, if advance continues to be made on present lines, all things will be made by machinery and all workmen will either be machine makers or machine tenders. A machine maker must be very skillful, but a machine tender may need but little skill and may command inferior pay; hence, it is fair to assume that the skilled machinist will maintain his superiority hereafter as in the past. As an art machine building has no equal; it rests solidly on the necessities of the human race; it extends above all other arts and demands of science its most perfect work.

Buchanan Rock and Ore Breaker.

This crusher is built in two styles, solid frames and sectional. Fig. 1 represents the machine recommended for general work. This has a frame cast in one piece, thereby avoiding all joints and bolts, nuts and connections liable to work loose and cause trouble. The jaw B of this crusher is not pivoted at the top or bottom, as is usual in most crushers in common use, but is suspended by side links F in such a manner that the jaw B will move forward in a straight line, producing a parallel and uniform crushing

best quality of hammered steel, is very heavy, and has long Babbitt-metal journals provided with large oil-cups, protected by dust-proof covers. The toggles O O and toggle-bearings L are chilled on the points and in seats, to insure long wear. The toggle-bearings are planed on the back and fit into planed pockets in the pitman jaw and wedge, and are secured by steel set screws, so that they can be quickly and cheaply replaced.

The adjustment of the crusher is effected by the wedges N E. These allow an ad-

The Dodge system has the greatest movement of the jaw applied at top where the resistance is greatest, and consequently crushes at that point much faster than it can deliver at the bottom. This prevents a rapid delivery and limits its capacity, but insures a fine uniform product. The motion in the Buchanan crusher being uniform, is capable of breaking any stone or piece of ore that can be introduced between the jaws at the first stroke, while the motion at the bottom of the jaw is sufficient to insure a very rapid delivery.

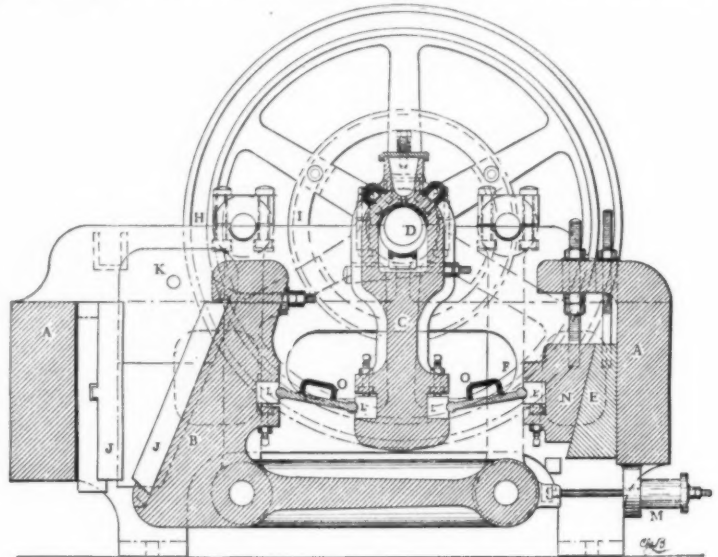


FIG. 1.—BUCHANAN PATENT ROCK AND ORE BREAKER.

justment of about one inch by raising or lowering the wedge E, and a further adjustment can be made by changing the toggles O O for longer or shorter ones as required, several lengths being furnished with each machine. There is also furnished a safety toggle having a section of the centre cored or cut away. This is strong enough to do the regular and legitimate work of crushing, but is relatively weaker than the other parts of the machine, and will break in case sledge-hammers or other foreign substances too hard to crush come between the jaws. The backward movement of the jaw is effected by the rubber spring and spring-rod M. Every part subjected to wear is made with an adjustable take-up, and all parts are made on the interchangeable system to standard United States gauges.

The great merit in this crusher lies in the uniform crushing movement of the swing-jaw B and the total absence of any grinding motion, so destructive to jaw-plates. The majority of crushers have jaws either pivoted at the top, as the Blake,

These machines are also built with a sectional frame, the heavy strains due to crushing being taken up by two heavy hammered steel tension rods or bolts. This design permits of a range of adjustment of three inches without changing the toggles or stopping the machine, but on account of the greater number of parts and joints it requires more care and attention. These crushers are made very heavy—the 9x15 inches weighs 16,500 pounds, the 10x20 inches 20,000 pounds, and the 15x24 inches 44,000 pounds.

A modification of this crusher is built for preparing road metal for township work. The breaker is mounted on wheels, and if required is provided with a revolving screen and elevator. The parts subjected to greatest strain are made of cast steel to reduce the weight and prevent breakage. The Buchanan crusher has been thoroughly tested and introduced, and is made of the best of material and workmanship. It is manufactured by the Beckett Foundry & Machine Co., of Arlington, N. J.; New York office, 143 Liberty street. All of

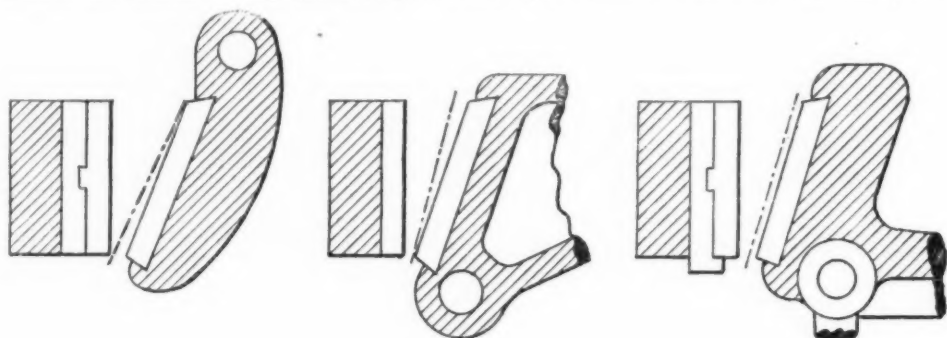


FIG. 2.

movement throughout the entire surface of the crushing plates J J. These plates are removable, and can be inverted, as they wear much faster at the bottom than at the top. They are made either of hard-chilled iron or cast steel. The side or cheek-plates K are also made so that they can be changed, when worn, to opposite side of the frame, thus presenting a new surface for wear.

The eccentric shaft D is made of the

or at the bottom, as the Dodge. Fig. 2 represents the three types of machines, the dotted lines showing the actual motion of the jaws. In the Blake system it will be seen that in order to get enough motion at the top of the jaw there is an excess of movement at the bottom, thereby allowing the passage of large pieces when the jaws open. If the stroke is shortened it is liable to clog at the top, owing to the very slight movement of the jaw at that point.

these machines are designed and patented by the company's engineer, C. G. Buchanan.

The Hayden Patent Pipe Wrench.

A pipe wrench made by the Belden Machine Co., of New Haven, Conn., having some new and excellent features, is shown in the accompanying illustration. This wrench is made of forged steel, and by its construction will not mark the most highly polished brass or nickel pipe, nor crush

the thinnest pipe. An examination of the illustration shows that the bearing surface extends over four-fifths of the circumference of the pipe, thus giving a firm hold without chance of slipping, and by lowering the handle and forcing it backward the grip is released, thus allowing the wrench to be used in the same manner as an ordinary ratchet or tooth wrench. The No. 2 wrench is ten inches long and clamps $\frac{1}{2}$,



THE HAYDEN PATENT PIPE WRENCH.

$\frac{3}{4}$ and 1-inch pipe. No. 3 wrench is eighteen inches long and clamps $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-inch pipe.

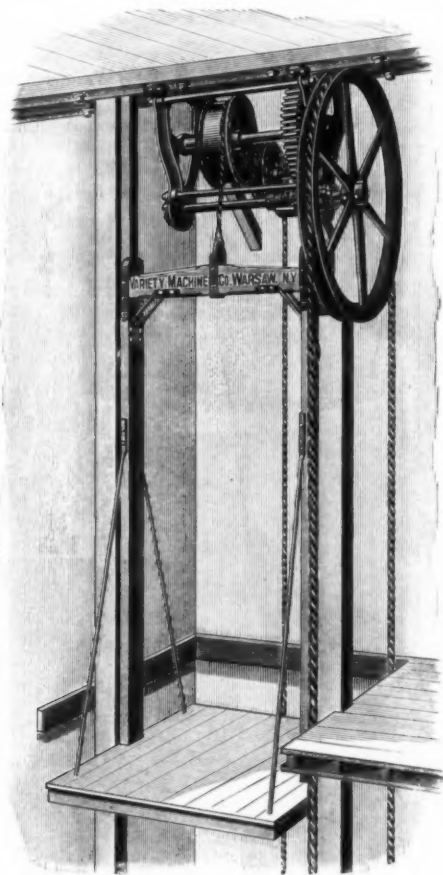
Variety Hand Elevator.

An excellent hand elevator, shown in the accompanying illustration, is being manufactured by the Variety Machine Co., of Warsaw, N. Y. This elevator possesses some new and decidedly advantageous points. The winding machine is built complete in a heavy iron frame, requiring from 20x30 to 30x36 inches space, according to the size of the machine. The bearings are bored out and fitted with steel rollers, making a durable anti-friction bearing. The shafts are all of steel and of ample size to withstand all strains which

when the operator releases the hand rope.

The counterweight is made in sections and so arranged that more or less weight can be used, according to the load to be carried; this change can readily be accomplished in a moment's time. The weight works with very little friction, and is ordinarily placed at the back of the machine. When desired it may be hung on either side or carried to any part of the building

where most convenient. The cable runs one and one-quarter times around the winding drum and then over a 12 or 16-inch sheave direct to the weight. The car is made of well-seasoned hardwood, strongly braced and bolted, the finish being either natural wood or paint, as desired. These cars are built of any size and height or of beam desired. The automatic safety device is an important feature. This consists of two pairs of corrugated cams, one pair on each side of the car. These are operated by heavy springs and levers and act instantly in stopping and holding the car should the lifting ropes break from any cause. When the safety catches act the strain comes on the guide posts in the best manner—that is, endwise of the post. The



THE VARIETY HAND ELEVATOR.

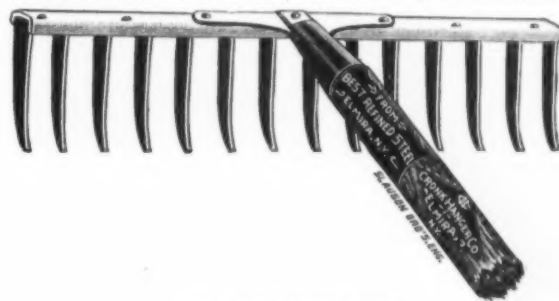
will ever be brought to bear on them. The gearing is heavy and cast from accurate iron patterns, so that they are durable and nearly noiseless. The automatic clutch used on these machines is very simple and has but few parts, which are made of steel castings to give strength and durability. The parts subject to friction are furnished with bronze discs and Babbitt plugs. In operation this clutch is perfectly automatic and holds the load securely at any point

rope-wheel for lifting can be placed on either side of the machine as desired. The capacity of these machines is No. 1, 800 pounds; No. 2, 1,200 pounds; No. 5, 2,000 pounds.

New Steel Garden Rake.

The Cronk Hanger Co., of Elmira, N. Y., has placed on the market a steel garden rake possessing many new and desirable features. As shown in the accompanying

illustration, the head is made of channel steel, holding the teeth firmly in place. These latter are made of wrought steel and riveted on with Norway iron. As they are thin and broad they do not take up so much dirt as a thicker tooth, and the wedge shape prevents clogging when used in raking a lawn or in cleaning up leaves or twigs. This form also gives the teeth great stiffness and durability. The socket is of malleable iron, and the strong bracing which is secured by the construction justifies the maker's statement that it is one of the most durable rakes on the market. In the short



NEW STEEL GARDEN RAKE.

time since they were first introduced the maker has been compelled to more than double its capacity in order to fill the orders which have been received. Dealers state that the rake is sure to meet with a large sale.

Mount Savage Fire-Bricks.

Some fifty years ago all fire-brick used in this country were brought from England, but about that time the excellent and extensive fire-clay deposits on Savage mountain, Alleghany county, Md., were discovered and a company organized to operate them. The Mount Savage Fire-Brick & Iron Co., as it was called, purchased about 5,000 acres of mineral land and commenced the manufacture of fire-brick. The company also built a rolling mill and two blast furnaces, but, not succeeding well, they were abandoned and all efforts turned toward making fire-bricks. In this they have continued, and with such success that their bricks are found throughout the country and regarded as a standard of quality. In 1870 the title of the company was changed to the Union Mining Co., and in 1889 a controlling interest was purchased by Messrs. Black, Sheridan & Wilson, coal operators in the George's Creek district, and a change of management made. Since that time extensive additions and improvements have been made to the works.

The fire-clay mines are high up on the mountain, some three miles from the works. An inclined plane one and one-quarter miles long leads from them to the foot of the mountain, where a narrow-gauge railroad connects with the factories. The average output of the mines is about 5,000 tons per month, and between 30,000 and 40,000 tons are kept stored in the yard at the works. These consist of two large buildings fitted up with the latest and most improved machinery. The clay is first delivered into the large grinding machines; from here it is carried by an elevator to the mixing machine, and from this to the molders, who, after shaping the brick, place it upon the drying floor. From here they are taken to hand presses and then to the kilns. These kilns, two in number, are 200 feet in length and divided into sections. A large gas producer is mounted on rails and moved from one section to the other, so that the whole kiln or any one or two of the sections may be burned, filled or emptied without interfering with the other part. The capacity of the kilns is 500,000 bricks each. A new kiln has been recently designed and erected, having a capacity of 60,000 bricks. It contains several improvements over the old ones, and another of the same pattern will be

erected during the coming year. The use of gas in burning fire-brick is something new, and not only gives an intense heat, but also distributes it evenly throughout the kiln, improving the quality of the brick and reducing the tendency of large sizes to warp.

Improvement in Real Estate.

[From the Nashville American.]

The outlook for real estate is decidedly encouraging.

While the transfers from day to day do not show a large number of sales, the busi-

ness, instead of falling off with the approach of winter, is holding its own, if not actually increasing in volume.

The universal and continued enthusiasm over the result of the recent elections has interfered somewhat with the regular run of real estate transactions, but it means the restoration of confidence and an infusion of new energy in every class of citizens and in every branch of trade.

It is not a question of correct predicting; the results are perceptible already, and the agents of Nashville are doing, in a quiet way, a first-rate business. And this is not true of this or that particular section only, but the good cheer seems to have cleared the horizon in every section of the country. The advance in the price of various products means money in the pockets of both producers and consumers, and this in turn means increased prosperity to all.

It is a significant fact that Eastern capitalists who have heretofore preferred to lend their money with mortgages on real estate as security are now withdrawing their loans and are making outright purchases of the property. With the restoration of confidence will come as much capital as is needed. But one thing that Nashville needs, but which has been strangely overlooked, is a greater number of what may be designated as small industries, not small in the sense of unimportant, but only in the sense that they could be established and successfully conducted without a great outlay of money.

A CORRESPONDENT of the Clarksville (Tenn.) Tobacco Journal says that the three stemmeries in that city and one in New Providence will have an output this season of 5,250,000 pounds of English strips. These, he estimates, will pay to the farmers and employes some \$347,875 for the tobacco and labor in stemming, etc. Five other tobacco factories in the city will purchase 2,750,000 pounds loose tobacco, and from these he estimates \$173,250 will be paid to farmers and operatives, making a total of \$521,125 distributed in the town. Of this the farmers receive about \$480,000, and operatives \$41,125. Besides this, Clarksville receives the disbursements from the nine tobacco warehouses located within its limits.

M. BOURDELLES, chief engineer of lighthouses in France, has, by using electric lights, perfected a system which enables him to project a light of 2,500,000 candle-power with the use of four lenses. By means of an ingenious mechanism a flash is made every twenty seconds. This is probably the best work in this line which has been accomplished. The system will be used in the La Herve lighthouse.

ELECTRICITY.

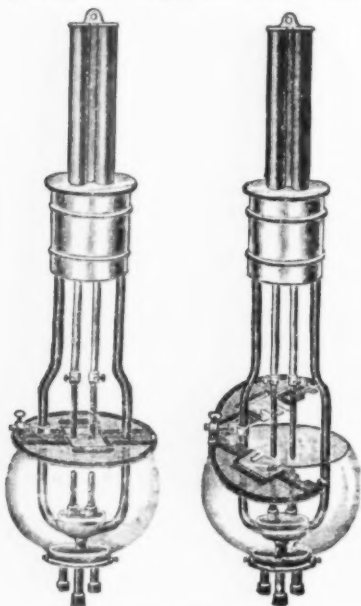
Baltimore's New Electric Company.

A meeting of Baltimore and other capitalists interested in the formation of a new electric company was held in the office of the Maryland Electric Light Co. on South street on Monday last. Among those present were Messrs. R. T. McDonald, president of the Fort Wayne (Ind.) Company; J. Preston Hix, who represented the Edison Company, of New York; W. P. Putney, of New York; J. Frank Morrison, manager of the Maryland Electric Company, D. E. Evans and A. J. Carr, of Baltimore. Mr. Putney presided at the meeting, and Mr. Carr acted as secretary. The new company will be formed from the Maryland Electric Company, the capital stock of which will be increased from \$500,000 to \$2,000,000. Books for subscription to the new stock will shortly be opened, and it is said that investors and others in Baltimore will be given the first opportunity to become stockholders in the enterprise. The company will furnish light, power and heat by electricity, having the exclusive right to use the Edison patents in this city. The projectors of the enterprise intend to build an immense central house with capacity of 6,000 to 7,000 horse-power, and the wires to conduct the electricity to the points of consumption will be laid in underground conduits. Further plans of the new organization are yet to be discussed, and a permanent organization will not be effected until the additional stock is subscribed, when the stockholders will meet and elect officers. Mr. J. Frank Morrison, it is said, will be the general manager of the new company.

Spencer Spark Arrester.

The extensive use of arc lamps in factories, saw mills and shops where inflammable material is used has been retarded to a considerable extent by the strenuous insurance rules in vogue relative to lamps unprotected by screens.

A new spark arrester which is being placed on the market by Taylor, Goodhue & Ames, of Chicago, and which is illus-



THE SPENCER SPARK ARRESTER.

trated herewith, possesses a number of new points to merit its introduction. The previous forms of spark arresters have often been awkward to adjust and clumsy in appearance. The new arrester is well illustrated in the accompanying cuts, one of which shows the appearance of the spark arrester when properly adjusted to the lamp, while the other illustrates the manner of adjusting. The clamp on the side firmly holds the arrester in position by securely clamping it on the supporting rod, and as this clamp is adjustable it may be

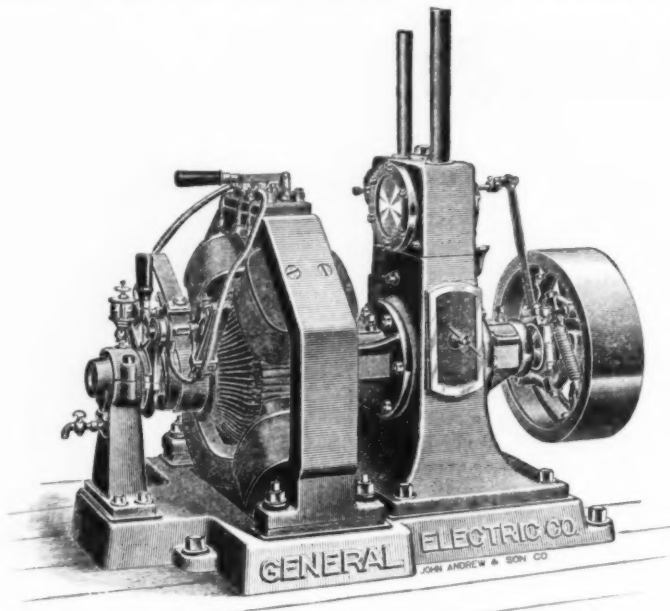
used on lamps with either the supporting rod placed inside the globe or outside. The appearance of the arrester is exceedingly neat, and with its novel features it should find a very ready market.

Direct Coupled Engine and Dynamo.

The direct coupled generator and engine in one compact set is, under conditions of restricted space and position, the ideal

The generator is of the familiar General Electric Co. quadripolar type, compound wound, having a regulation automatic within two per cent. over the entire range from no load to full load.

The commutators are cross connected, so that only two brushes, 90° apart, are used. The rheostat is of the new iron frame incombustible type. The engine and dynamo are both provided with self-oiling bearings.



DIRECT-COUPLED ENGINE AND DYNAMO.

electrical plant. We illustrate a small, direct coupled generating set, recently perfected and manufactured by the General Electric Co. As perfected it represents the result of two years of careful practical experience.

For marine installations, where a separate engine is indispensable to drive the generator, these sets are especially adapted. As cheap as, if not even less expensive than belted plants, they can be readily fitted to positions where a belt-driven

The sets are manufactured in four, eight, fifteen, thirty and fifty kilowatt capacities.

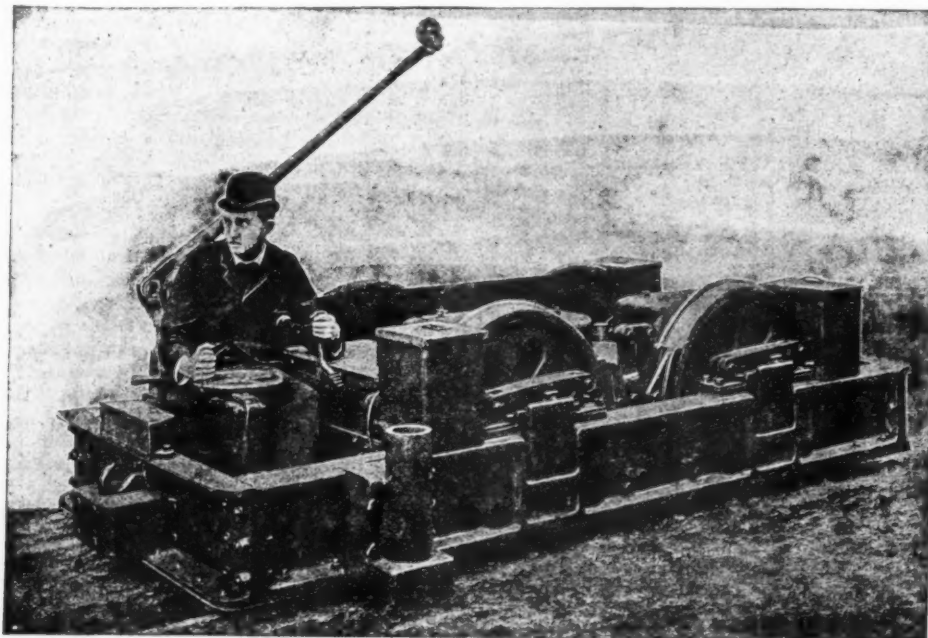
New Electric Mining Locomotive.

We illustrated and described recently a new mining locomotive constructed by the General Electric Co.—the C. L. M. type. We now show a new mining locomotive also designed by them to meet the growing demand for small, substantial, low-priced machines of this character. It will be known to the trade as the T. M. M type,

that there is little pounding upon the track. By this method of construction it is possible to take the motors, together with the wheels and axles, entirely out of the frame. The motors used are of the standard railway type, either the W. P. thirty or W. P. fifty, as required. For gauges narrower than three feet special four-pole motors have been designed, which will run on gauges as narrow as eighteen inches. The controlling mechanism used is the standard series parallel controller. The brake is a powerful form of steel screw hand lever. No adjustment is necessary for the wear of the brakes used, as the steel screw takes up the lost motion until the shoes are worn out. The trolley is of the single arm insulated type, and may be moved from one side to the other of the machine as occasion may require. As the motors are self-protected, no cover for the locomotive is considered necessary, but one can be easily supplied. The cover increases the total height of the machine four inches. Sand boxes are provided for both front and rear wheels. All of the controlling levers are placed on the platform of the machine within easy reach of the operator.

CAPT. W. H. FOGG, of Altamonte Springs, Orange county, Fla., an expert in irrigation, has erected and put in operation at Reddick, Fla., one of the most complete irrigating plants in the country. The plant consists of a vertical steam boiler of twelve horse-power, a Knowles steam pump of over 200 gallons capacity per minute and over 6,000 feet of piping ranging in size from four inches in diameter to one and a-half inches, with thirty-four hydrants located conveniently throughout the orange grove. The boiler and pump are enclosed in a substantial building with roof of corrugated iron.

IN experimenting on the cultivation of sugar beets, W. M. Hays, of the Minnesota experimental station, found that the cost of raising them on weedy land was \$3.25 per ton and on clean land \$2.09 per ton. The results of planting different seed indicate that about twenty pounds per acre are required. The Knauer Imperial variety gave



A NEW ELECTRIC MINING LOCOMOTIVE

dynamo and engine could not find a sufficiency of space. Compact and simple in arrangement, their suitability for small isolated plants in hotels and buildings where belting is objectionable is undeniable.

Under exhaustive tests the engine shows the highest possible economy obtainable from machines of this size, and its simplicity is such as to reduce the attention necessary to a minimum.

and consists principally of two standard railway motors mounted upon a heavy iron truck frame. The truck frame is built of cast-iron side frames, bolted to heavy steel channel beams, which are securely fastened together by a wrought-iron angle plate. The axle-bearing boxes are small and solid in construction, easy of access for oiling and replacing the brass linings. The frame of the locomotive is hung from the axle boxes by means of steel springs, so

the largest yield. Another report from the same station says that the average sugar contents of beets grown on the station was 17 per cent. The experiment station in Iowa states the average sugar contents of fifteen samples at 11.66 per cent., 72.27 per cent. purity of juice for Klein Wanzleben variety and average 13.34 sugar, 76.47 purity for the Vilmarin variety. These trials were on various soils, the best results being from a sandy soil with sandy subsoil.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department, on page 410.]

Southern Lumber and Shingle Association.

A meeting of the Southern Lumber and Shingle Association was held in New Orleans on the 5th inst. in the parlors of the St. Charles Hotel. In the absence of President F. B. Williams, Capt. G. M. Bowie was chosen temporary chairman, and E. H. Defebaugh, secretary. Captain Bowie, on opening the session, stated that the object outlined in the call was the question of securing better prices, less insurance rates and other matters pertinent to the interests of the association, as well as the cypress trade. He stated that the prices realized were entirely too low for the class of lumber shipped for firsts and seconds or selects, which rank with the same grades in white pine, and in many respects are superior. He thought some action should be taken in order to work for the interest of these grades of stock in advanced values. After a lengthy discussion, in which the views of representatives of the various companies present were freely given, the following preamble and resolutions were unanimously adopted:

Whereas, the Southern Tariff Association has seen fit to advance insurance rates on cypress saw and shingle mills to what we consider exorbitant rates; and

Whereas, this association is inclined to be arbitrary in its demands, we, the Southern Lumber and Shingle Association,

Resolve to protest against the rate of the Southern Tariff Association, and that a committee of two be appointed to correspond with various outside insurance companies who are seeking risks in this territory with a view to placing our business with them. * * *

The committee of two, consisting of the chairman and secretary, was instructed to inform the New York parties of the action of the meeting. At the second session the following resolution was adopted:

Resolved, That owing to the fact that many of the members are interested in both the cypress and pine associations, it is thought best to change the date of the meeting of the Cypress Lumber and Shingle Association from Wednesday, February 15, to Monday, February 13, 1893.

Committees were appointed to revise and formulate price-lists, and submit same at next meeting. After some discussion on various matters of interest the meeting adjourned. Among the members present were G. W. Bowie, Whitecastle, La.; I. C. Turner, Harvey, La.; D. W. McEwan, Henry Willman, Robert Hackney, H. G. Ganse and Otto Manske, of New Orleans; S. G. Knowlton, Plaquemine, La.; I. R. Jones, Shreveport, La.; R. M. Hubbard, Litcher, La.; William Curphey, Vicksburg, Miss.; W. B. Trelleau, Patterson, La.; W. B. Dickerson, Montgomery, Ala., and C. H. Ruddock, of Ruddock, La.

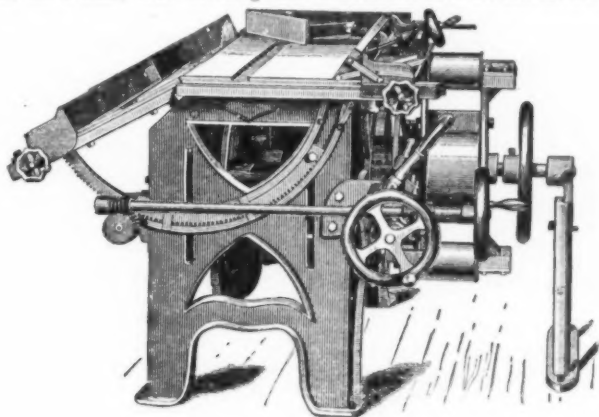
Sullivan Lumber Co.

The Sullivan Lumber Co., of Pensacola, Mobile and New York, was organized about six years ago and was originally chartered for twenty years. The contract for cutting timber from the estate of Mr. Sullivan expired on November 5 and will not be renewed. Officers of the company deny the assertion that its corporate existence will cease under the changes which occur. On the other hand, it is said the company will continue in business and the mills at Mobile will still be operated. Mobile will be the base of operation, and the mills at Wallace, Sullivan and Tensas, Ala., will be shut down, as they are largely dependent on the Sullivan lands for supplies. The company has also given orders to purchase from 20,000,000 to 40,000,000 logs. A meeting of the company will be held in January, when there may be some changes made in its future plans. It is said that Mr. Sullivan will enter the field on his own account when a final settle-

ment of the company's affairs are made with him.

Four-Saw Iron Bench.

The Adjustable Saw Table Co., of Fitchburg, Mass., has brought out the new four-saw iron bench shown in the accompanying illustration. The bench is constructed to carry two or four saws, as may be desired, and so arranged that but one saw runs at a time, thus avoiding the



FOUR-SAW IRON BENCH.

throwing of sticks and sawdust and the danger of the operator and others getting injured. It is belted in such a manner that the tension of belt is the same in whatever position the saw may be placed. This is of great advantage, as in rabbeting and grooving hardwood the arbor pulley, being on the outside, admits of using one inch larger pulleys than can be used where it is underneath the bench. Any

with extension on circular tongue the full top can be set to any angle to forty-five degrees. The table is provided with two cutting-off gauges and straight-splitting gauge for leaf and Farwell's adjustable bevel gauge on table proper.

With the leaf and cutting-off gauges, which swing each way to forty-five degrees, any two angles can be cut at the same time. It is of frequent occurrence that it is desirable to have the leaf set at some angle

while the table proper remains level with the splitting and cutting-off gauges. In splitting on a bevel on the leaf the stock is not pressed against the saw as it is when the whole top tips, and in running stock to width on table proper the leaf can be dropped, thus freeing table of all waste and avoiding danger from flying sticks. The leaf can be adjusted to forty-five degrees from level. These machines are

iron top; wood frame and skeleton top. This bench is built in two sizes—four feet by three feet four inches, and three feet by three feet.

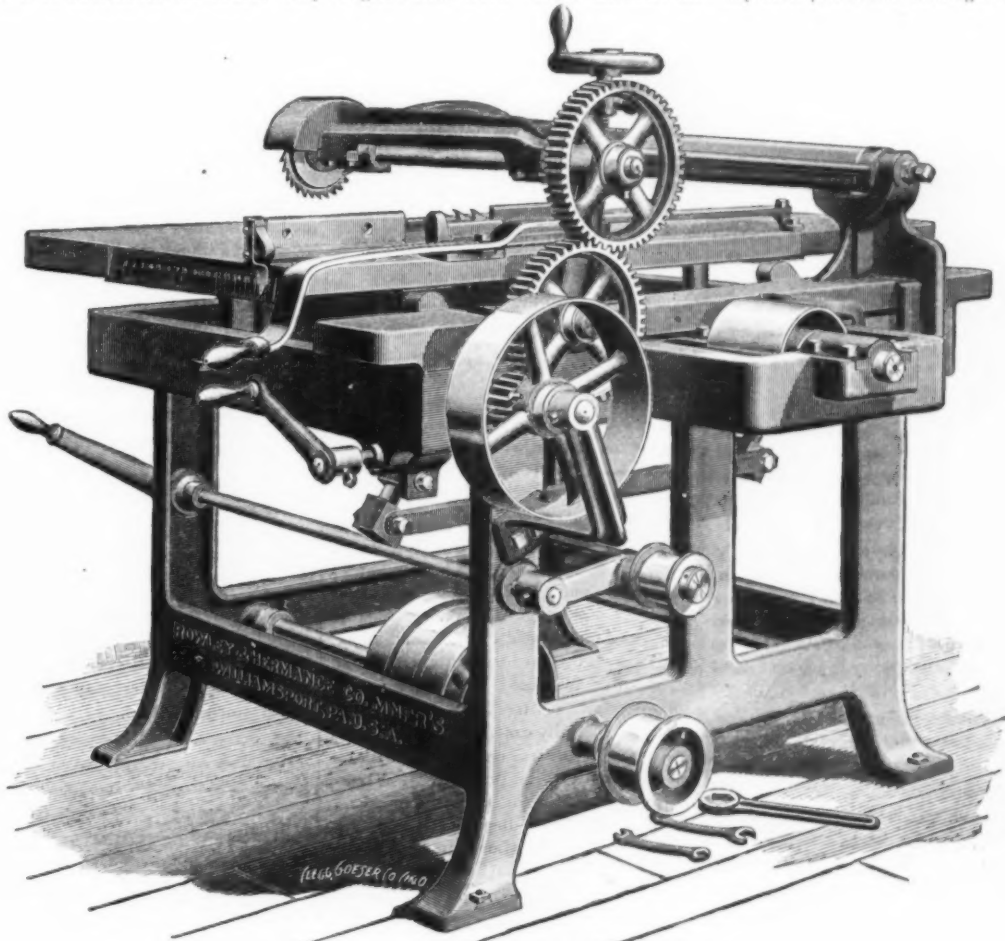
Improved Self-Feeding Rip-Saw Table.

The Rowley & Hermance Co., of Williamsport, Pa., has brought out a new improved "No. 1 lightning" self-feeding rip-saw table, which is of entirely new design and made from new patterns. This machine, shown in the accompanying illustration, is intended to take the place of the ordinary hand-fed rip-saw table for ripping strips of any width up to sixteen inches wide and six inches thick.

The iron frame is cast in one piece, very heavy and strong, with a substantial outside bearing for saw arbor. The table is iron, with an opening around the saw, into which an iron plate is accurately fitted, which is taken out when saws are to be changed, thus avoiding the lifting up of the table. The feed works are powerful and reliable, capable of doing rapid work, and are started and stopped by a tightener. The feed-roll marks are taken out by the saw, leaving no mark on the lumber.

It is the strongest feeding machine on the market. There are three rates of feed, slow, medium and fast, of forty-five, 100 and 160 lineal feet per minute, respectively.

The method of changing from self-feed to hand-feed is simple, rapid and easy. The patent setting device is entirely new and novel. The gauge can be set at any mark on the index plate, or at any fraction of an inch, and by a slight movement of the lever is locked rigidly in position. The iron table is raised or lowered by an improved patent table-raising device, with



IMPROVED NO. 1 LIGHTNING SELF-FEED RIP-SAW TABLE.

length of belt can be used, and the counter-shaft can be placed on or underneath the floor, front or back of the machine. The spiders will revolve saws to sixteen inches in diameter, and by changing a 20-inch saw can be run. The bench is provided with a drop leaf operated by hand-wheel worm and gear, thus holding it in any position without the aid of clamps. The table proper is hinged to bench, so that

built in the very best manner and weigh 1,400 pounds; size four feet by three feet four inches.

The single bench will do the same kind of work as the double bench, as the top is fitted the same, but carries only one saw, which is raised and lowered with hand-wheel worm and gear, and is designed for shops where a cheaper bench is wanted. It is built as follows: Wood frame and

a crank at the front end, as shown in the cut. The table is provided with two long idle rolls, which relieve it from friction and wear. A shield covers the saw when in operation, and the table is supplied with a spreader, making it absolutely impossible for a board or short pieces to be caught and thrown over the saw, thus avoiding accidents from that cause. This machine is particularly adapted for ripping 1-inch

boards, moulding stock and general planing mill work. One 14-inch saw, one feed saw and necessary wrenches are furnished with each machine. Two or more saws can be used at one time if so desired. The pulley on arbor is six inches in diameter by 6-inch face, and should run 2,800 to 3,000 revolutions per minute. The machine is made either with an iron table hinged or with the iron table and a patent raising table attachment. The weight is 1,500 pounds.

Southern Lumber Notes.

THE shipment of staves and cross-ties from Volcano and Petroleum, W. Va., since the 1st of March last aggregate 1,000,000 of the former and 20,000 of the latter. Large shipments of poplar lumber have also been made to Eastern markets.

ON Tuesday, the 8th inst., the Sabine River Lumber Co.'s dry-kiln, near Logansport, La., caught fire and, notwithstanding the united efforts of the mill crew, was entirely consumed. Col. H. N. Bennett, general manager of the mill company, stated that he could not estimate the loss, but thought it would probably be between \$7,000 and \$10,000. The company had a large number of orders for lumber which will be delayed on account of the fire. The dry-kiln was partially insured.

BUILDING is reported very active at Ocala, Fla., and the three planing mills of that town are busy getting out material for about forty residences which are now in course of construction.

THE Farrar Lumber Co., of Dalton, Ga., are making extensive improvements in North Dalton. Many new houses are being erected in different sections of this thriving suburb.

THE steamship Cherokee, from Jacksonville, Fla., for New York, left last week with freight including 170,000 feet of lumber and three carloads of shingles.

H. W. BRADSHAW, of Suffolk, Va., has purchased a half interest in D. S. Jones & Co.'s planing mill at Norfolk.

FIVE carloads of shingles and 255,000 feet of lumber was included in the freight of the steamship Seminole last week, from Jacksonville, Fla., to New York city.

W. H. SMITH, of Casey, Tenn., has purchased a quantity of poplar and oak timber from Pipkin Bros., and will erect a mill to cut it next spring.

MR. J. H. BECHER is building a new mill at South Jacksonville, and will cut 20,000 feet of lumber per day of ten hours. He will operate his old mill at Jacksonville until the new one is completed.

H. LEINHARDT's new mill at Mississippi City, Miss., is completed and operations have commenced. The plant includes a steam circular saw, 17-saw edger and steam carriage, Prescott steam feed and Garland log roller, and its capacity is 50,000 feet of lumber daily.

THE steamship Yemassee left Jacksonville, Fla., last week for New York with 20,000 feet of lumber included in its freight.

W. L. TODD's saw mill at Salisbury, Md., together with 50,000 feet of dry lumber, was destroyed by fire on the 10th inst. Mr. Todd will rebuild.

THE Reliance Lumber Co., of Beaumont, Texas, have completed their improvements, and will commence operations on or about the 16th inst.

THE Aldridge Lumber Co., of Rockland, are building a dry-kiln near their planer. They have lately received a mile of railroad iron, and will extend their tramroad, which is already eight miles long, thus reaching into the virgin pineries of Angelina county.

THE schooner Fred Gower cleared from Brunswick, Ga., last week for Rio de Janeiro with a cargo consisting of 8,673 pieces of pitch pine deals, measuring

583,971 superficial feet and valued at \$7,591.62, and 126 pieces of sawn timber, measuring 30,226 superficial feet and valued at \$392.94.

NEW boilers have been put into the mill of Carter & Bros. at Barnum, Texas, and everything is now running smoothly.

THE boiler of the works of the Red Springs Lumber Co. exploded on the 10th inst. with terrific effect. Two colored workmen were instantly killed and two others seriously wounded. The pecuniary loss is slight, as the machinery is but slightly damaged and the building was of little value.

THE rush of business is so extensive at the Ocala Lumber Co.'s planing mills at Ocala, Fla., that they have put in electric lights and will work a night force to keep up with their orders. The company received one order last week for 2,040,577 feet of lattice.

MESSRS. ADAM & CO., formerly of Pennsylvania, are progressing rapidly with their large lumber plant now building at Aberdeen, N. C., and hope to commence operations by January 1st. They will prepare 50,000 to 100,000 feet of lumber daily.

THE Kanawha & Buckhannon River Lumber Co. is building a lumber and log railroad in West Virginia to feed its mill in the Kanawha waters and get lumber to the West Virginia & Pittsburgh Railroad.

THE Southern Supply Co. is preparing to put in large planing mills at Cordele, Ga. This is the fourth large plant which has been established in Cordele for the purpose of manufacturing lumber. The new mill will dress car sills and other heavy timber for shipment, and will have a capacity of over 50,000 feet per day.

THE saw mill of Mr. L. R. Colbert, on Massaponax run, about six miles from Fredericksburg, Va., in Spotsylvania county, was entirely destroyed by fire on the 6th inst.; loss about \$800, with no insurance.

THE Loomis-Hart Manufacturing Co., of Chattanooga, Tenn., has started up its mill, being the first and only mill started in this vicinity this fall. The company has plenty of logs to run its mill until the water is high enough to bring down its regular stock from the logging districts.

A SYNDICATE of capitalists from Parkersburg, W. Va., has incorporated the Gauley Company, with a capital of \$1,000,000. This company proposes to operate lumber mills and coal mines, and now owns some of the most valuable timber and mineral lands in West Virginia.

MESSRS. JOHN W. MIDDENDORF, Skipwith Wilmer, Charles H. Jones, H. J. Keyser, John Gill, William Fitt, J. G. Kraft, D. B. Merryman and P. C. Laurensen, of Baltimore, and Washington Danenhower, of Washington, D. C., returned to Baltimore on Saturday last from Suffolk, Va., where they have large properties, and which they inspected while there. The improvements of the East Suffolk Land Co. were carefully examined, and the party expressed themselves well pleased with the development of their property. The latest industry added to the company's works is the Suffolk Spring-Bed Co., which was formerly the Tyler Manufacturing Co., of Baltimore.

ADVICE has been received of the formal opening of the South American Cable Co.'s service between Brazil and the coast of Africa. The new cable is 2,163 nautical miles in length, and connects at the island of San Luiz de Senegal, on the African coast, with the Spanish National Submarine Telegraph Co.'s line running to Cadiz by way of Tenerife and the Canaries. At Cadiz the line connects with the Marine Telegraph Co. to Great Britain and with Mediterranean cable systems. The rates established are six to seven francs (\$1.20 to \$1.40) per word from Pernambuco to all principal points in Europe.

LUMBER MARKET REVIEWS.

New York.

OFFICE OF MANUFACTURERS' RECORD,
No. 126 Liberty Street,
NEW YORK, December 13.

There is, perhaps, a little improvement in the conditions since our last letter.

The North Carolina pine market seems to be in particularly good condition. Stocks are being placed readily. In fact, it is one of the easiest woods to dispose of at the present time. There seems to be a demand for all present supplies.

The yellow pine market has not improved much. Just as we think we can see an improvement ahead some one comes in and slashes prices, and all our fond hopes are dashed to the ground. We are very glad to note, however, that there seems to be a tendency among the Southern mills towards uniting. We believe this to be the solution of the present deplorable condition. We have spoken of it time and time again, and it is a subject which should never be dropped until every Southern mill man has learned the lesson that in organization there is strength. Their interests are identical; anything that will help to improve the condition of yellow pine in one section will improve it in another; any movement that will enable one man to get good prices should be hailed with joy by all the rest. At the present time the men who handle the lumber direct from the stump are those who get the least profit out of it, and this should not be so. Our advice is to get together and save themselves. Our quotations continue the same:

Building orders, 12 in. and under... \$19 50@ 20 00
14 in. and up... 20 00@ 21 00
Yard orders, random... 17 00@ 18 00
Ship stock, 40 ft. average... 22 00@ 23 00
Heart face siding, 1 and 1 1/4 in... 18 00@ 19 00
1-inch wide boards... 22 00@
1 1/2 and 1 3/4-inch wide boards... 23 00@
Kiln-dried sap... 15 00@ 16 00
Rift-sawn flooring, rough cargo lot... 36 00@ 38 00
" tongue and grooved, in carload lots... 40 00@

The cypress market, so far as this district is concerned, is about as last reported.

But there is something in the air, and improvement is the order of the day. Mr. H. F. Seymour, who represents a number of the large cypress manufacturers, is now in town, and will remain here several weeks for the express purpose of booming this valuable wood. He will probably have an exhibit, and direct his attention particularly to architects, with a view to getting them to call for cypress in their specifications. There is no question as to the result of his efforts. They are bound to succeed, and the manufacturers of cypress must reap the benefit.

The hardwood market remains about as last reported.

There is no change in quartered oak. No large orders are being placed, and such orders as are given are mainly for carload lots.

QUARTERED OAK.
1x6 inch and up... \$49 00@ 50 00
Thicker... 50 00@ 53 00
Common... 35 00@ 38 00

PLAIN OAK.
1x8 inch and up... \$35 00@ 36 00
1 1/2 and 1 3/4 inch... 36 00@ 38 00
2 inch... 37 00@ 39 00
Export oak... 32 00@ 34 00

ASH.
1 inch... \$35 00@ 37 00
3/4, 1/2 and 2 inch... 37 00@ 40 00
2 1/2, 3 and 4 inch... 38 00@ 41 00
Common... 22 00@ 24 00
Balusters... 22 00@ 26 00

There is a growing demand for elm, which, for cheap work, is taking the place of oak to a considerable extent.

We have also heard of more inquiries for sycamore, and we look for a renewed inquiry for this valuable and beautiful wood.

The outlook for the coming year is regarded by everyone as most encouraging, and we can see no reason to think that they will be disappointed.

Baltimore.

OFFICE OF MANUFACTURERS' RECORD,
BALTIMORE, December 15.

A fairly active lumber market may be re-

ported for the past week, and the volume of trade fully up to the average for this period of the season. There is a fair demand from dealers, and in nearly all the yards a considerable movement of assorted lumber is reported. In commission circles the principal firms record a fair direct and through business. In the list of values there is no material change, and throughout the market prices are generally very steady, especially for desirable stuff. Receipts of Virginia and North Carolina yellow pine are not so liberal, but sufficient for the demand existing at the moment. Prices for all grades are firm, and with the demand fair prices are easily maintained. Air-dried lumber is in good request, especially for desirable flooring grades, while box lumber is dull and easy. Cypress is fairly active and prices steady, especially for the better grades. In white pine there is a good business in progress, with values unchanged. There is a regular demand for hardwoods, and although not of great volume, business is in a fair condition. The regular demand from furniture manufacturers and others will not commence until later on, when a considerable trade is expected. There is a fair business in shingles, although the trade is not as extensive as last month. Laths are quiet and nominally steady.

The following table represents the prices current at this date:

VIRGINIA AND NORTH CAROLINA PINE.		
5-4x10 and 12 No. 2, kiln dried	\$17 00@	17 25
4-4x10 and 12 No. 1	19 75@	20 25
4-4 narrow edge, No. 1, kiln dried	17 25@	17 75
4-4 wide edge	22 50@	
4-4 No. 1 and 12	22 50@	23 50
4-4 No. 1 edge flooring, air dried	15 50@	16 50
4-4 No. 2 edge flooring	12 50@	13 00
4-4 No. 1 12-inch stock	17 00@	17 50
4-4 No. 2	13 50@	14 50
4-4 edge box or rough wide	8 50@	9 50
4-4 " (ordin'y widths)	8 50@	9 00
4-4 " (narrow)	8 00@	8 50
4-4x12	10 50@	11 00
3/4 narrow edge	7 50@	7 50
3/4 all widths	7 50@	8 00
3/4 10x16 wide	8 00@	9 00
Small joists, 2 1/2-12, 14 and 16 long	8 00@	9 00
Large joists, 3-16 long and up	9 50@	10 50
Scantling, 2x3-16	9 50@	10 50
" 2x4-16, 18 and 20	9 50@	10 50
" 3x4-16, 18 and 20	9 50@	10 50
" 4-4x12-16	10 50@	11 00
" 8-4x12-16	10 50@	11 00
" 6-4x10-16	9 00@	9 50
" 8-4x10-16	9 00@	9 50

SOUTHERN PINE.		
Siding and edge boards	14 50@	15 50
Heart face boards	22 50@	23 50

WHITE PINE.		
1st and 2d clear, 4-4	48 00@	52 00
" 5-4, 6-4 and 8-4	48 50@	52 50
3d clear, 4-4, 5-4, 6-4 and 8-4	43 00@	44 00
Good edge culls	14 00@	15 00
Good stock	17 00@	18 00
White pine, No. 1, 4-foot headed pickets	13 50@	14 50
4-4 selected edge	39 00@	43 50
6x8-4 selected edge, box out	39 00@	45 00

CYPRESS.		
4-4x6, 16 feet, clear	23 50@	24 50
4-4x6, 16 feet, fencing	13 50@	14 50
4-4 rough edge	10 50@	11 50
4-4 edge, Nos. 1 and 2	19 50@	21 00

HARDWOODS.		
Walnut.		
3/4, Nos. 1 and 2	75 00@	100 00
4-4, Nos. 1 and 2	90 00@	100 00
5-4, 6-4 and 8-4	95 00@	110 00
Nos. 2 1/2, 3 and 4	125 00@	
Newell stuff, clear of heart	125 00@	
Culls	30 00@	35 00

Oak.		
Cabinet, white and red, plain sawed and good 1 and 2, 8 in. and up, 12 to 16 feet long, 4-4	35 00@	40 00
5-4 to 8-4	35 00@	40 00

Quartered white, 1 and 2 quality, all figured, 6 in. and up wide, 4-4		
	50 00@	53 00
Culls	10 00@	15 00

Poplar.		
Nos. 1 and 2, 3/4	22 00@	23 50
" 4-4	24 00@	25 50
Nos. 5, 6 and 8-4	27 00@	30 00

In yellow pine cargoes, log run stock		
	12 50@	16 50
Culls	12 50@	14 50

SHINGLES.		
Cypress, No. 1 hearts, sawed, 6x20	7 50@	7 75
No. 1 saps, sawed, 6x20	6 00@	6 25
No. 1 hearts, shaved, 6x20	6 50@	7 00
No. 1 saps, shaved, 6x20	5 25@	5 50

LATHS.		
White pine	2 70@	2 75
Spruce	2 35@	2 40
Cypress	2 15@	2 20

Norfolk.

[From our own Correspondent.]
NORFOLK, VA., December 14.

There has been a large volume of business in lumber during the past week at this and adjacent points in the interior of the State. It is thought that the business of the next quarter of the new year will be the largest in the history of the lumber industry of Norfolk. The demand for kiln-dried North Carolina pine is still very active, and its popularity as a favorite wood at home and foreign ports is growing rap-

idly. At the late advance there is a stronger inquiry, and prices are obtained readily for all desirable grades and dimensions. The favorable weather prevailing has promoted the lumber trade in all its departments from the point of production to the shipment. A scarcity of cars restricted shipments to some extent recently, but this drawback has been remedied, and shipments are now made more promptly. At all the wharves and docks of the various mills around the city the scene is one of decided activity, and shipments to Northern ports are numerous. The receipts of air-dried lumber are not excessive, and for certain grades very light, especially in flooring boards. Box lumber is dull, except stock widths, which are in good demand. Cypress lumber is active, and pieces for desirable stuff meets with ready sale. Shingles are firm and in good demand. Planing mill men are all encouraged by the outlook, and business is improving, orders being plenty at a better margin of prices. The following list represents the prices current at this date.

Kiln-dried North Carolina pine lumber f. o. b. at this port is quoted as follows:

5-4 rift No. 1.....	\$27 50/100
5-4 rift No. 2.....	16 00/100
5-4x10 No. 1.....	20 00/100
5-4x12 No. 1.....	20 50/100
5-4x10 No. 2.....	15 00/100
5-4x12 No. 2.....	16 00/100
5-4 edge No. 1.....	17 50/100
5-4 edge No. 2.....	13 50/100
4-4 rift No. 1.....	25 00/100
4-4 rift No. 2.....	15 00/100
4-4x10 No. 1.....	18 50/100
4-4x12 No. 1.....	19 50/100
4-4x10 No. 2.....	15 00/100
4-4x12 No. 2.....	15 00/100
4-4 edge No. 3.....	9 50/100
5-4 edge No. 3.....	9 00/100
4-4x8, 10 and 12 culls or box.....	9 00/100 10 50
4-4x5-4 edge, cull or box.....	8 50/100
VIRGINIA PINE.	
4-4 flooring boards (dry and clear).....	13 50/100 14 50
4-4 flooring boards (rough).....	7 25/100 7 75
SHINGLES.	
No. 1 hearts, split, car lots.....	6 50/100 7 50
No. 2 hearts, split, car lots.....	5 50/100 6 50
No. 1 saps, split, car lots.....	4 75/100 5 25
No. 2 saps, split, car lots.....	4 50/100 5 00
No. 1 sawed hearts, car lots.....	6 50/100 7 25
No. 2 sawed hearts, car lots.....	5 00/100 5 50
WOOD.	
Hard, per cord.....	2 75/100 3 00
Pine, per cord.....	2 75/100 3 00
STAVES.	
Red oak hoghead, prime.....	38 00/100
Red oak hoghead, culls.....	22 00/100
White oak hoghead, prime.....	50 00/100
White oak hoghead, culls.....	28 00/100 30 00
White oak heading, prime.....	50 00/100
White oak heading, culls.....	26 00/100

Mobile.

[From our own Correspondent.]

MOBILE, ALA., December 13.

There has been only a moderate trade in progress during the past week in lumber and timber, and the market has ruled quiet and values about steady. The shipments of lumber have been mostly in small lots to the Belize and Grand Cayman, with the exception of one cargo of 351,127 feet of lumber to Dordrecht. The total shipments of lumber for the week were 546,243 feet, and since the 1st of September 15,577,922 feet, against 13,888,059 feet in 1891-92. The shipments of hewn timber for the week were 3,169 cubic feet, and since September 1 556,755 cubic feet, against 321,176 cubic feet last year. In sawn timber the shipments since September 1 were 383,494 cubic feet, against 187,396 cubic feet last year. The market for hewn timber is firm, with stocks scarce and in good demand. Sawn timber is dull at 11½ to 12 cents per cubic foot, basis of 40-foot average. There is a good demand for lumber from the West Indies and Mexico. There is also a good inquiry from South America, and several cargoes are about ready for shipment. The shingle trade is quite active, and the mills are all fully engaged with orders. Advances from the interior of this State and Mississippi are very satisfactory and represent mills as actively engaged, and many improvements to plants are in progress. The Russel Spoke and Handle Factory at Huntsville, Ala., will be ready to go into operation on January 1. Escambia county, Ala., is being taken up by lumbermen, and several towns are growing up in the piney woods. A. K. Ashton is erecting a mill three miles from Douglasville, in that

county. The Ocean Springs Lumber Co., Ocean Springs, Miss., is doing an extensive business. There has just been filled at that point a large contract for railroad ties for South America.

Charleston.

[From our own Correspondent.]

CHARLESTON, S. C., December 13.

A fairly active lumber market has been the rule during the week, and coastwise shipments have been liberal. All reports from the interior represent affairs in the milling sections of the State as very satisfactory, and mills are generally employed with orders. There is a fair demand from Northern ports, and prices hold steady, but show no marked improvement. The shipments for the week by steamer to New York were 34,000 feet of lumber and one car of logs. The schooner H. & J. Blenden took 433,000 feet, schooner A. B. Sherman 468,000 feet and the schooner Clara E. Bergen 378,380 feet, all to New York. Philadelphia shipments were 397,292 feet per schooner Anna L. Mulford. The schooner James Ives took 402,000 feet to New Haven, and schooner C. E. Young 400,000 feet to Baltimore. Total shipments coastwise were 2,512,672 feet of lumber and one car of logs. The quotations at the close of the week are unchanged. Merchantable lumber \$14.00 to \$16.00 for city sawed, and \$12.00 to \$14.00 for railroad; square an 1 round timber \$9.00 to \$13.00 for railroad, and \$8.00 to \$11.00 for raft. Dock timber is steady at \$4.50 to \$6.50, and shipping \$8.50 to \$10.50. Shingles are in moderate supply and firm at \$5.00 to \$7.00 per thousand.

EXPORTS OF LUMBER FROM CHARLESTON FROM SEPTEMBER 1, 1891, TO DECEMBER 9, 1892.

Exported to	1891-'92. Feet.	1891-'92. Feet.
New York.....	9,554,517	9,399,268
Boston.....	259,260	—
Philadelphia.....	1,474,292	2,310,000
Baltimore.....	840,000	534,000
Other United States ports.....	709,000	998,000
Total coastwise.....	12,787,069	13,271,268
Great Britain.....	—	—
Palermo.....	—	—
France.....	—	—
West Indies.....	608,096	—
South America.....	—	468,300
Nova Scotia.....	—	—
Other foreign ports.....	—	578,674
Total foreign.....	608,096	1,046,974
Grand total.....	13,395,165	14,318,242

Savannah.

[From our own Correspondent.]

SAVANNAH, GA., December 13.

The market for lumber and timber, as usual at this period of the season, shows considerable activity, and the volume of trade is of very fair proportions. There is a good business doing in cross-ties, and the demand from several trunk lines of railroad is active, and prices hold very firm. The inquiry for lumber is better from foreign ports, and there is also some business doing with the West Indies and South America. The exports of lumber coastwise for this week were as follows: Philadelphia 73,464 feet, Baltimore 408,370 feet, Boston 255,145, Wilmington, Del., 253,000 feet and New York 549,560 feet. Foreign shipments were 257,121 feet of lumber to Oporto, making a total for the week of 1,796,660 feet. The total shipments since the first of September were 35,244,415 feet of lumber, 75,000 staves, 1,566 cases of cedar, 389,620 cross-ties, 2,403,000 shingles, 3,062 cedar logs and 1,860 bundles of laths. Prices at the close are generally firmer for the better grades and dimensions. In freights the rates are not materially changed, and the market is quiet and nominal. From this and nearby Georgia ports rates are nominal at \$4.50 to \$5.00 for a range including Baltimore and Portland, Me. To the West Indies and Windward rates are nominal, to Buenos Ayres or Montevideo \$14.00, and to Rio Janeiro \$15.00. To the United Kingdom

for orders £4 10s. per standard for lumber. Steamers to New York are quoted \$7.00, to Philadelphia and Boston \$8.00, and Baltimore \$6.50.

Pensacola.

[From our own Correspondent.]

PENSACOLA, FLA., December 13.

There is considerable activity in the lumber trade of the port, and from the number of vessels arriving and departing this industry seems to be decidedly on the increase as to the volume of business. There is a good demand for hewn timber, and stocks at present are very light, with prices firm. Sawn timber is also in fair request, with the supply more liberal. There is an excellent trade in lumber, and the demand from both domestic and foreign ports is brisk. The departures this week embrace cargoes to United Kingdom and the Continent, as well as the West Indies and South America. The bark Renittant sailed for Montevideo with 349,000 feet of lumber and 7,987 pickets, valued at \$5,000 and shipped by the Southern States Land & Timber Co. A cargo of 588,000 feet of lumber was shipped by Verrault & Whiting to Calais, France, valued at \$7,500. The bark Raphael, for Naples, took 233,787 feet of lumber, and the Sullivan Timber Co. shipped 30,389 feet of sawn timber to West Hartlepool, England.

Memphis.

[From our own Correspondent.]

MEMPHIS, TENN., December 13.

A series of bad days has somewhat shortened the amount of business at the local yards and mills. This does no harm, as at this season of the year the locals need a little time in which to straighten up their yards, take account of stock and prepare the balance sheet of the year's work. There is not much accumulation of stock in the yards at this point, and scarcely any dry lumber to be found, especially of oak and ash; some of the heavy dealers have a fair amount laid away, about equally divided between plain and quartered, but they are not seeking orders therefor, as they are expecting better prices in the near future. Of dry cottonwood and gum the stock is also very limited.

The shipping trade is affected but little by the advent of winter, and so is going on at about the same rate of sale. The associate trades, boxes, baskets, cooperage, etc., are a little lighter, having pretty well caught up with their orders, and most of them are now working but little, if any, overtime.

The belting and general machinery and supply houses still report their business fully up to the increase of the fall. Lee Bros. and Atkins & Co. say that November was even better than October in the line of new orders. Mr. Gladding, of Atkins & Co., gives me the following items from their books: V. H. Kirkland has bought out Vansweinge & Kirkland in their heading factory at Jackson, Miss., and will operate it alone; the Freeman Lumber Co., at Melville, Ark., which has been cutting 65,000 feet a day, having exhausted their immediate supply of available timber, are now building an additional three miles of railroad into the woods.

W. H. White & Co., hardwood makers at Kendalls, Ark., have added a new set of boilers and a gang edger. The Oxley Stave Co. at Camden, Ark., will soon have their extensive plant in running order. They have purchased a towboat and are building several barges by which to transport their staves to market. The Riverside Lumber Co., with postoffice at Rosedale, Ark., which has been idle for two months past, is now running full time. They have a full stock of logs on hand or on the river bank ready for floating in. On December 8 Mr. Gladding, for Atkins & Co., shipped one full carload of general milling machinery to the J. E. Potts Lumber Co. at Ogowan, Ark. This is a Michigan com-

pany which is putting up a mill of 50,000 feet a day capacity, hardwood.

There are no changes in prices to report.

BLACK WALNUT.	
1st and 2d, 1, 1½ and 2-inch.....	\$65 00/100 70 00
Common.....	35 00/100 40 00
Counter tops.....	90 00/100 110 00
ASH.	
1st and 2d clear, 1 to 4-inch.....	24 00/100 30 00
Common.....	12 00/100 14 00
CYPRESS.	
1-inch, 1st and 2d clear.....	22 00/100 24 00
1½, 1½ and 2-inch.....	24 00/100 26 00
Fencing 1x6, 16 feet.....	15 00/100 16 00
POPLAR.	
1-inch, 1st and 2d clear.....	24 00/100 25 00
1½ and 2 inch, 1st and 2d clear.....	26 00/100 28 00
Common boards.....	14 00/100 16 00
Dressed, 1, 1½ & 2-in., 1st & 2d clear.....	28 00/100 30 00
Common dressed, 1-inch.....	16 00/100 17 50
Squares.....	22 50/100 26 00
COTTONWOOD.	
1 to 3-inch mill run, culls out.....	9 00/100 12 00
Squares.....	12 50/100 16 00
RED GUM.	
1st and 2d.....	16 00/100 20 00
Common and culls.....	8 00/100 10 00
OAK.	
1 to 4-inch, 1st and 2d.....	24 00/100 26 00
Common, 1 and 2-inch.....	13 00/100 15 00
Quarter oak, 1-inch, 1st and 2d.....	30 00/100 32 00
Quarter oak, 1½-inch and up.....	34 00/100 36 00
White \$1 higher.	—
YELLOW PINE.	
1st and 2d, 1½ and 2-inch.....	18 00/100 20 00
Dressed.....	25 00/100 30 00
Flooring, 5 and 6 d and m.....	17 50/100 —
Flooring, 3 and 4 d and m.....	17 50/100 20 00
2d flooring.....	15 00/100 17 50
Heart step lumber.....	27 50/100 —
Ceiling, 1st and 2d, ¾, ¾ and ¾.....	17 50/100 20 00
Ceiling, 1st and 2d, ¾ and ¾.....	16 00/100 —
Common f. o. b. Memphis.....	—
Car lots.....	12 50/100 —
TIMBER (LOGS).	
Poplar.....	6 00/100 10 00
Cypress.....	6 00/100 9 00
Cottonwood.....	3 00/100 4 00
Gum.....	3 00/100 4 50
Oak.....	6 00/100 12 00
Ash.....	8 00/100 13 00
Black walnut.....	15 00/100 50 00
SHINGLES.	
No. 1 heart cypress, 16-inch.....	5 00/100 —
No. 1 sap, 16-inch.....	2 25/100 —
LATH.	
Poplar.....	2 00/100 2 75
Cypress.....	— 60 2 50
Pine.....	— 60 2 00

Beaumont.

BEAUMONT, TEXAS, December 12.

Throughout the milling section of this district lumber matters are moderately active, and while the volume of business is not excessive, there is a good trade in progress, with the outlook encouraging. The holidays are near at hand and the season for closing the business of the year is drawing nigh, so under these conditions the market may be rather quiet until after the opening of the year. The reports of crops from Kansas and other States which are large lumber buyers in this market are all very good, and throughout this State the agricultural features are all more or less cheerful. A good demand is therefore expected in the early spring. The improvements and building of railroads is creating a better demand for both lumber and timber, and the quantity required during the coming year will be considerable. The Beaumont Journal, in its weekly review of the market, says: "Taken altogether, the situation is rather cheering—too much so, indeed, for manufacturers to crowd the market. As indicating the good trade of the past month, it may be stated that one firm in Beaumont shipped more than 1,000,000 feet of dressed stock, and other classes of lumber went forward in equal ratio. Orders are still coming in quite freely, and it is this fact that encourages millmen to remain somewhat quiet and give the dealers a chance to say what they want. Prices are stiff, fully 75 per cent. of the sales being made at list figures." The market for shingles is very buoyant, and prices firm, very few of the mills having much dry stock left over at the end of the year. At Orange, Texas, and Westlake and Lake Charles, La., the lumber market is about the same, and the same conditions govern the output. The shipments of lumber from Orange have been quite large during November. A schooner left with lumber for La. Porte taken from Gilmer's mill. The water has been very low in the Sabine river lately, and there has been a scarcity of vessels. The work on the pass is going forward, and everything is rushing. Contractors are building new wharves and extending the old ones, so that everything is getting ready for work on the jetties.

IRON MARKETS.

Philadelphia.

[From our own Correspondent.]

PHILADELPHIA, December 14.

The past week has witnessed a marked falling off in nearly all branches of the iron trade, so far as the placing of new orders are concerned. The business of the selling agents has been light compared with the transactions of two months ago, but since many of the furnaces are pretty well sold up, the slackened demand has had little effect upon them. With the activity that is present in the general pig iron consuming industries, and with order books in such a fair condition, there is no inducement for producers to stimulate buying by concessions on present prices. The reports from various sections of the country of furnaces starting or getting ready to go into blast after the beginning of the new year indicates that production will show a substantial increase during the next few weeks. Now and then there is a report of sales of pig iron at a shade below quoted rates, but as a rule the leading companies are disposed to await the coming of the new year before engaging their future output, unless at the outside quotations. At this season of the year consumers generally carry light stocks, purchasing only such material as is absolutely necessary to meet pressing wants. To a much greater extent than usual the placing of contracts to run during the coming year has been postponed until after the close of this year, and everywhere is manifested a disposition to take no risks on the future, but to await further developments. Under the present conditions, by which business is limited to actual necessities, prices have not much significance. There is no heavy buying to test the market, and those who must have pig iron are compelled to pay the price asked. Quotations continue as follows for nearby deliveries, with the usual concessions at points too miles east and south of here:

Standard Pa. No. 1 X.....	\$15 00@	18 75
" " No. 2 X.....	14 00@	14 75
Forge.....	13 00@	13 50
Southern coke No. 1 foundry.....	14 75@	15 00
" " No. 2.....	13 75@	14 25
" gray forge.....	13 00@	13 50

Wheeling.

[From our own Correspondent.]

WHEELING, W. VA., December 14.

The only thing that seems to menace the pig iron industry at this time is the prospect and probability of a very material increase in output after the first of the year. For some time there have been very strong indications that the country's consuming capacity was overtaking the production, and now that this appears to be accomplished and indications are for better prices and more prompt returns, those who have been contributing to the general fund of improvement and prosperity by remaining idle are casting about for their share. For a while it paid better to be idle than to make iron at the prices ruling, especially as it was hard to sell even at those prices, and that was the inducement that led many furnacemen to run light or close down.

Just now, however, these conditions are very materially changed, and in the North there is but very little iron that is not contracted for, and the furnaces that make forge irons are sold well ahead, some of them up to April 1 and even a little beyond that. In consequence of this condition prices are well maintained, and for distant future deliveries are being pushed up a notch.

It must not be understood from this that any great amount of business is being transacted at this immediate time, for such is not the case. Buyers are almost universally preparing for settling-up time and are lightening stocks as far as is judicious. There is not a sale of any importance to be reported in the Wheeling district this week and there are not likely to be any before the mills go to work again after the holidays.

Finishing mills are not pushed with business at this season for the same reason that the furnaces are not urged to make quick deliveries.

Soft steel has dropped back to the place it occupied before the recent flurry and, if anything, is weaker than on October 1. Bessemer pig is feeling the effects of this, and the price has dropped below \$14 again. This is due almost as much to overproduction as to a weak steel market, however.

Southern irons are feeling the good effects of a scarcity of Northern mill irons, and prices are well maintained and rising.

Foundry irons are sailing along steadily, and are not subject to sudden changes in demand that effects other brands. Few sales for advanced deliveries are reported, but trade is fair and well balanced.

On the whole, barring the probability of injudicious increases in production, the market is very good for the season, and there is but little room for complaint.

Prices are reported as follows:

No. 1 Northern mill irons.....	\$12 60@	12 75
No. 1 Southern mill irons.....	12 50@	12 85
No. 1 foundry.....	14 50@	14 75
No. 2.....	13 50@	13 75
No. 3.....	13 00@	13 25
Bessemer.....	13 75@	14 00

Chicago.

CHICAGO, December 10.

The Chicago market is showing the usual degree of quiet common during the month of December. There are but few large transactions pending or in sight, but small orders are numerous, these distributed among both large and medium-sized consumers, showing a need of further stock to cover their consumption up to the first of the year. The current demand is divided between Northern and Southern cokes and softeners, charcoals being inactive. Reports have been published that in the Chicago district the Southern furnaces generally are cutting prices, that they are under the necessity of forcing sales, and that the tone and firmness which have been conspicuous features of the market of all sections for the past two or three months have given way to weakness and demoralization. A careful review of existing facts indicate there is no ground for reports referred to, and that the ruling conditions are entirely different from those described. With the exception of three or four of the smaller Southern companies, representing in all four or five stacks, there has been no cutting of prices in Chicago or the Northwest, nor is there any disposition or need to pursue this policy. The Southern furnaces, with the exception of the number mentioned, are all in good condition. They have been selling their product faster than made, and to-day are holding firmly on a basis of \$10.00 Birmingham for No. 2 foundry and No. 1 soft, and other grades at proportionate figures. The impression has gone abroad that the general market has turned in a downward direction, but this is not the case, and several attempts this week to buy round blocks of No. 2 foundry and No. 1 soft at \$10.00 Birmingham have been refused, the furnaces to whom these were made holding firmly at twenty-five cents higher per ton on account of their sold-up condition. The volume of business going is light, but no more so than is usual during the last month of the year, and the ruling conditions and indications point to a continued steady, firm market, with an active buying movement beginning early in the year of 1893.

We quote for cash f. o. b. Chicago:

Southern coke No. 2 foundry.....	\$13 85@	14 00
" " No. 1 soft.....	13 35@	13 60
Lake Superior charcoal, Nos. 1 to 6.....	17 00@	17 50

ROGERS, BROWN & MERWIN.

Cincinnati.

CINCINNATI, December 10.

The features of the market heretofore noted have continued during the past week. The volume of business has, perhaps, been a little larger. The tendency still remains, however, to act very conservatively and

await developments. The pressure to get forward iron on existing contracts proves that the melt is not materially reduced. The short season of quiet following the long continued active demand gives a little appearance of weakness in spots. The main conditions, however, remain strong. Those who have cut the full price in Southern irons have been smaller sellers, whom a few good-sized orders would fill up for several weeks. The larger producers still have very heavy unfilled orders, sufficient, on most grades, to take their product through the winter. The feeling is, that if business continues up to its normal limit after the first of the year there must be further strengthening in pig iron, owing to the rapid reduction of stocks without any corresponding increase in output. It all depends on the course of general business throughout the country after the turn of the year. It is undeniable that many enterprises, either planned or actually begun, have been suspended since the election. There are those, however, who think this is not an unmixed evil. If we do not have as many manufacturing plants, there will be less danger of overproduction and ruinous domestic competition.

The sales effected during the past week have been mostly for Southern iron, of which two or three thousand ton lots have been sold with a fair run of smaller orders. Buyers in some cases were able to shade regular prices asked by the leading furnace companies.

We quote for cash f. o. b. cars Cincinnati:

Southern coke No. 1 foundry.....	\$13 75@	14 00
" " No. 2 foundry.....	12 50@	12 75
No. 1 soft.....	12 50@	12 75
Hanging Rock coke No. 1.....	15 50@	16 00
" charcoal No. 1.....	18 50@	19 50
Tennessee charcoal No. 1.....	16 00@	16 50
Jackson county stone coal No. 1.....	16 00@	16 50
Southern coke, gray forge.....	11 50@	11 75
" mottled.....	11 00@	11 25
Standard Alabama car wheel.....	18 00@	19 00
Tennessee car wheel.....	17 00@	17 50
Lake Superior car wheel.....	17 50@	18 00

ROGERS, BROWN & CO.

St. Louis.

ST. LOUIS, December 10.

There has been a number of sales made during the past week of 3 to 500-ton lots, mostly Southern coke iron. Most of the Southern furnaces are holding firm at prices quoted below, although the majority of these orders have been taken at cut figures made by the smaller furnace companies.

We quote for cash f. o. b. St. Louis:

Southern coke No. 1.....	\$14 50@	14 75
" " No. 2.....	13 25@	13 50
" " No. 3.....	12 75@	13 00
" gray forge.....	12 25@	12 50
" charcoal No. 1.....	16 00@	16 50
Missouri " No. 1.....	14 50@	15 00
Ohio softeners.....	16 50@	17 00
Lake Superior car wheel.....	18 00@	18 25
Southern " ".....	18 50@	18 75
Frick's Connellsville foundry coke.....	18 50@	19 00

ROGERS, BROWN & MEACHAM.

Louisville.

LOUISVILLE, December 10.

The demand for future delivery is not as strong, but for prompt shipment consumers are urging iron forward. On one or two transactions recently some concessions in price were made; same, however, cannot be considered the market, as the sales were not for account of the leading companies, who are unwilling to make any concessions in price. Consumers report a falling off in orders for finished material, though urgency is displayed for deliveries intended for the next sixty days. The largest transaction in pig iron was about 2,000 tons of No. 2 soft, deliverable during five months. There were also two other transactions among car companies for the same grade of iron for delivery during sixty days, and concessions were made on all three. Mill irons continue firm, and furnaces have more orders booked than they can fill for some time. Charcoal irons continue in light demand.

We quote for cash cars Louisville:

Southern coke No. 1 foundry.....	\$13 25@	13 50
" " No. 2.....	12 00@	12 25
" " No. 3.....	11 50@	11 75
" gray forge.....	11 25@	11 50
" charcoal No. 1 foundry.....	15 00@	16 00
" car wheel.....	17 50@	17 75

GEO. H. HULL & CO.

COTTON MARKET.

NEW ORLEANS, LA., December 12.

Editor Manufacturers' Record:

Since our last the market has gone through several vicissitudes in the way of advances and declines, and we close to-night forty-eight points higher than last Monday. The Hatch-bill influence has been the principal factor in the situation, causing ups and downs according as the gossip at Washington was for or against a prospective passage of the bill, but a feeling is growing that a postponement until after the holidays has been so strongly advised to the Southern Senators and Congressmen as doubtless will result in deferring any debate until January. The idea is, that so strong will the evidence be of the shortness of the crop by that time as to make prices independent of any threat of adverse legislation. In other words, the merits of cotton will be so pronounced as to show that dealing in future contracts has no more injurious effect upon the cotton market than it has upon sugar-cane. The time is near at hand when the consuming world and speculation will awaken to a realization that the supply will diminish so rapidly as to startle speculation and cause an advance in prices that few appreciate the extent of just now. We think this week will be the lowest in price for some time. Our information to-day is that the India crop has been seriously injured. This information we obtained this afternoon, and is known to but few here. Receipts still continue on a liberal scale, and while they are quite large, and, compared with last year, free, yet at the same time not equal to that of 1884. We showed several days ago that the November port movement of 1884-85 was 1,105,000, while last month it was 1,133,000. Port receipts this week in 1884 were 253,000. We estimate receipts this week at ports at 225,000, and yet the crop of 1884-85 was 5,706,000 bales. The position in the market has been decidedly strengthened by the fact that two of our houses which have been bearish have changed sides, and the short interest is now represented by a weaker element. We still adhere to our ideas of 6,250,000, and what that means in the way of price the future will have to determine. Liverpool must soon awake from her apathy and realize that if they want cotton to run their mills after 1st of September next they will have to be active in getting it from this side, as the Liverpool stock is not available on account of the large short interest in that market needing it for the protection of their short contracts. The South has it in her power to dictate prices, an opportunity which may never present itself again. If the deluded people who claim that anti-option legislation will make cotton higher hereafter can only be made to see the error in their way of thinking, the last obstacle in the way of higher prices will have been removed.

ATWOOD VIOLET & CO.

CLOSING PRICES OF FUTURES DECEMBER 14.

Months.	New Orleans.	New York.	Liverpool.
December.....	9.46	9.51	5 7-64
January.....	9.46	9.59	5 8-64
February.....	9.49	9.59	5 9-64
March.....	9.62	9.79	5 11-64
April.....	9.70	9.88	5 13-64
May.....	9.79	9.98	5 15-64
June.....	9.88	10.07	5 18-64
July.....	9.96	10.14	5 20-64
August.....	.....	10.19	5 22-64
September.....	.....	.....	.....
October.....	.....	.....	.....
November.....	.....	.....	.....
Tone of market.	Steady.	Quiet and steady.	Steady.

CLOSING PRICES OF SPOT COTTON DECEMBER 14.

Grade.	New Orleans.	New York.	Liverpool.
Middling.....	9 9-16	9 3-16	5 3-16
Low middling.....	9 3-16	9 5-16	5 1-16
Good ordinary.....	8 11-16	8 3-16	4 15-16
Tone of market.	Steady.	Quiet.	Steady.

COAL AND COKE.

Coal Waste and Its Remedy.

[Abstract of an article by Walter J. May in *The Colliery Guardian*.]

There has of late been a noticeable increase in the waste of coal, much slack and dirty coal being left in the workings owing to its being unsalable at a profitable rate. This affects mine owners, royalty owners and manufacturers, as a larger output at lower rates would tend to larger consumption, not only by reason of the mere cost of the fuel being less, but also because iron-makers and others would be better able to meet foreign competition and still work at a profit. Assuming the cost of coke in producing one ton of pig iron at \$4.80, and that at \$12.00 per ton the iron gives a profit, then if the coke cost but \$4.56 the iron could be sold at \$11.76 at the same profit, and a smaller profit than this often makes the pivot upon which a good business will turn. Another important fact is that the coal left in the workings is, as a rule, irretrievably lost, to say nothing of the tendency to increase the frequency of gob fires.

By removing all of the coal the interest of the royalty owner is made more valuable. If the entire tract of coal should be sold at a fixed sum it does not matter so much, but if on a tonnage basis, then every ton remaining in the mine is a dead loss to him. The interest of the mine owner is also advanced by clearing out all of the coal, as he then removes a source of danger from fires, gains the whole of the mineral, and, while not retarding the proper pinning and stowing of the workings, gets clear of a lot of material which to some extent hinders the output. This would naturally lower the cost, as the fixed charges and dead work would be divided by the increased tonnage output. The decreased cost would lead to lower selling price, and this, again, to increased consumption because of lower cost.

As to the manufacturer, his interests are to buy as clean a coal as possible at as low a price as he can get it, and in the iron trade particularly both coal and coke must be free as possible from sulphur and ash. In any case the buyer for manufacturing purposes will select the fuel which gives the highest duty in proportion to its cost, and in most cases will give the preference to that which is cleanest.

Assuming that all coal in the mine is brought to the surface, that which passes over a 2-inch screen is of merchantable value without further treatment, and need not be further considered; that which passes through, however, must be cleaned from slate and impurities, otherwise its value as a fuel is low. This material and the interstratified coal and coke picked from the wagons could be carried to a central dressing station, where the material from a number of mines might be treated. Here it should be dumped into pits or hoppers, from which an elevator would take it to such part of the works as necessary. The large pieces of slate and coal would, of course, have to be crushed before passing to the jigs or washers.

A centralization of works is preferable, as the cost per unit is reduced when handling a large amount of material. At works of this class the work can be done effectively without any increase in cost of management over that necessary in a much smaller establishment, and a coal-washing plant handling 1,000 tons per day can, under favorable conditions, reduce the cost below two cents per ton. In considering which system is most satisfactory for treating the coal, the Lubrig system undoubtedly offers the most advantages. The products from this would be clean coal, pyrite and slate or dirt. The first would be in sizes from house coal down to small stuff for steam purposes, and the finer portions

would be suitable for briquette-making or coking. As this material would be quite free from slate or other objectionable matter and give a high degree of efficiency, it would command a good price. A set of coke ovens or possibly a briquette-making plant would be a valuable adjunct to such a works.

Taking everything into consideration, the outside cost of dealing with all coal under two-inch should not exceed twelve cents per ton on the cleaned material loaded for transportation. Taking slack worth eighty-four cents per ton in its rough state, and washing, there would be secured 70 per cent. good fuel for engine, household or manufacturing purposes, worth about ninety cents, and about 15 per cent. fine coal for coke-making, worth about eight cents, a total of ninety-eight cents. The other 15 per cent. would be ash and of no value. Therefore, from one ton of slack worth eighty-four cents would be secured .85 ton pure fuel worth ninety-eight cents, equal to \$1.15 per ton, or, putting it in another way, from every 117 tons of slack coal worth eight-four cents per ton, or \$98.28, would be secured 100 tons pure coal worth \$1.15 per ton, or \$115. Deducting from this even the excessive estimate of twelve cents per ton for handling, washing, etc., there remains a profit of \$4.72, which in a plant handling 1,000 tons per day would amount to \$47.20 net profit per diem.

Making Coke in Transit.

Mr. J. Anderson, of Chicago, Ill., has recently patented a process of making coke which is striking in its originality. It is a continuous process, and is suggestive of a brick-kiln or a glass-works annealing oven. The description of this interesting idea is as follows:

"The cars are run upon elevated trestleways and the charge of coal dumped upon the platforms of cars of an equal capacity on suitable tracks beneath, the platforms of which cars are fire-proofed and suitable for running into a series of long tunnelways arranged side by side, each tunnel having a length sufficient to contain a continuous train of twelve to eighteen cars. The walls of these tunnelways are first heated sufficiently to ignite the coal, when the heat incident to the coking process becomes stored up in the walls of the tunnel, and is accelerated to a full red heat at the outgoing end of the tunnel, as the cars are successively passed through, it being understood that when the full complement of cars to make up the train are run into the tunnel an additional car is added at suitable periods. For example, if each of the tunnelways are long enough to contain eighteen cars, and it is desired to make '36-hour coke,' a fresh car of coal will be pushed into each of the tunnelways every two hours, and a car of red-hot coke will emerge from the other end of the tunnels at the same time, and this action will be kept up perpetually, the heat generated in the coking process being sufficient to coke the coal completely without adding any more fuel thereto, so that the entire process of coking, after the first charge is ignited, is practically a continuous process.

"After the cars of red-hot coke have emerged from the outgoing end of the tunnelways they are immediately run into adjacent like tunnelways, the crowns of the latter tunnels being arranged with a series of steam generating boilers, so that the entire procession of cars loaded with the red-hot coke in the process of cooling is made to pass under these boilers, giving off and utilizing this heat for the generation of steam, which steam is to be delivered in suitable pipes to the adjacent factories and communities, or by utilizing this steam for the compression of air, to be delivered to factories and communities for power purposes, or to run dynamos to supply light, heat and power by electricity. After

the cars emerge from these second tunnelways the coke is delivered to the adjacent furnaces, avoiding the frequent handling of reloading and transporting to market.

"The gaseous products incident to the coking are drawn forward and condensed to separate the by-products, coal tar and ammonia. The gas is then forced into a receiver to be delivered to factories for fuel gas at less cost than natural gas, and safer to use because of its odor, thus completely recovering and utilizing all the valuable fuel contained in the coal, and further, of resolving such fuel into its proper compounds and form to produce the most perfect combustion. The burning process and passing of fire-proof cars through a tunnel when the walls are at a degree of heat sufficient to melt steel has been fully demonstrated and in active operation at the works of the Chicago-Anderson Pressed Brick Co. in Chicago for the last three years."

To one who is accustomed to the ancient beehive oven and its laborious operation there is a fascination in the thought that in the future we may start from the mines with a trainload of coal and reach our destination with an equivalent of loaded coke racks. Apparently this is only a question of the length of the new Anderson oven.

Coking Coal from the Upper Banner Seam.

Robert Fleming, a mining engineer in the employ of the Virginia-Tennessee Coal & Iron Co., says that a shipment of coal was recently made to Pocahontas from their newly-opened leases on Big Tom's creek and tested as to its coking qualities. Ten ovens were charged with the slack coal, and the results were very gratifying, proving beyond a doubt that the Upper Banner vein is an excellent coking coal.

The coal was made into 72-hour coke, and after charging same it ignited readily, fused nicely and broke up in the ovens in excellent shape, thus coking to the bottom of the charge thorough and complete and rendering it easily drawn, producing a columnar structure, in coking by planes vertical to the floor of the oven. The yield was large, 68 or 70 per cent. of an excellent coke, having a silvery appearance, porous, with a metallic ring, and seems to be very free from impurities. The coke exhibits capacity for bearing burden, and has a fine cellular structure, which will facilitate its ready combustion in the furnace.

From these and other tests made it appears that this Upper Banner seam is a good coking coal, ranking equal to Flat-Top or Connellsville. It contains as much carbon, less sulphur and 3 per cent. less ash than Connellsville. These results will prove a benefit to the whole region and a source of wealth to the owners and operators on the Upper Banner coal seam.

Coal and Coke Notes.

THE exports of coal from the port of Norfolk from January 1, 1892, to December 8, 1892, as cleared by William Lamb & Co., agents at Lambert's Point, is as follows: Foreign exports, 6,519 tons; coastwise exports, 32,577 tons. Total for week ending December 8 is 39,096 tons, and the total amount exported to December 8 is 1,525,054 tons.

THE power-house and much other property belonging to the Citizens' Coal Co., at Camden mines, in West Virginia, was destroyed by fire recently. At this mine electric coal-cutting and other machines are in use, and the dynamo, engine and boiler were irreparably damaged. The loss is estimated at about \$15,000. The machinery will all be replaced without delay and operations continued.

THE Mingo Mountain Coal & Coke Co. is firing up an additional number of ovens preparatory to making daily shipments of coke to the Watts iron furnaces at Middles-

borough, Ky., on and after January 1. The Mingo Company will furnish about 150 tons coke daily.

THE Richlands (Va.) Coal Co. will hold its annual meeting of stockholders on January 10, 1893. Fred R. Raven is secretary.

THE Logan Coal & Coke Co., to which a charter has just been granted in West Virginia, proposes to mine cannel coal along the Ohio extension of the Norfolk & Western. S. S. Vinson, of Ceredo, and others are the incorporators.

THE Powell River Coal & Coke Co., of Norton, Va., has leased all the coal lands, embracing several thousand acres, on the property of Patrick Hagan, in Scott county. Preparations to begin mining are now being made. A tunnel is being driven, and a number of houses will be erected to accommodate employees. The Louisville & Nashville will build a branch road to the mines.

MESSRS. ROBERT HOGSETT, W. H. Playford, A. D. Boyd and others, of Fayette county, W. Va., are making preparations to develop their recently-purchased coal lands. They are constructing an extensive coal plant.

FAYETTE COUNTY (W. Va.) capitalists have purchased 2,200 acres of coal land in a body located five miles west of Clarksburg, on the Baltimore & Ohio Railroad. Fifty acres of surface were included in the purchase. Those interested are Cyrus Echard and Harry Dunn, of Fairmont; Lewis M. Dawson, of Uniontown; James Parkhill, of Laurel Hill, and others.

MESSRS. W. K. BURTON & Co., of Chattanooga, have made a sale of 30,000 acres of Tennessee coal lands to New York parties.

Southern Iron Notes.

THE Sloss Iron & Steel Co., of Birmingham, Ala., will issue \$2,000,000 of bonds and \$300,000 of stock, so it was decided at its meeting held last Saturday.

THE Tennessee Coal, Iron & Railroad Co. has filed an amendment of its charter with the secretary of state at Nashville, which provides that its capital stock may be increased from \$18,000,000 to \$21,000,000.

THE Giles Foundry, in South Chattanooga, Tenn., has started three pits, and gives employment to 150 men.

THE Cloverdale Iron & Land Co. is preparing to make more extensive developments of its mines near Cloverdale, Va. J. T. Engleby, of Roanoke, is president of this company.

VICTORIA furnace, at Goslien, Va., will be put in blast soon. The Virginia Iron & Railway Co., its owners, is opening a rich vein of ore at Victoria mines, and have about completed extensive repairs to the furnace.

THE Augusta Mining Co., of Cedartown, Ga., will, it is said, soon commence developing its Frog Mountain iron property.

It is reported that a tract of 100,000 acres of coal lands in Fayette and Raleigh counties, W. Va., known as the McKell property, has been purchased for Drexel, Morgan & Co. for \$800,000. The coal obtained on the property is said to be equal in quality to that from which the celebrated Connellsville coke is made.

BLAST furnace No. 4, of the Ensley division of the Tennessee Coal & Iron Co., just gone out of blast for repairs, has made the remarkable record of 175,266 tons of pig iron, or an average of 105 tons per day, having run 1,668 consecutive days (or four years and 208 days of 365 days per year), without taking into account short stoppages of extraordinary causes, which caused her to be idle nine days. This furnace was lined throughout with the celebrated Mt. Savage fire brick, and is another of the many testimonials of their superiority.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

* Means machinery is wanted, particulars of which will be found in "Machinery Wanted" columns.

☞ In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Ashville—R. J. Hogan has leased of Hodges & Hogan their steam grist mill, brick machine, planer, etc.

Birmingham—Steel Plant.—The Jefferson Steel Co. will operate old Henderson Steel Co.'s plant, recently reported as being improved.

Huntsville—Safe, Lock and Vault Factory.—A proposition has been made to establish a safe, lock and vault factory. M. B. Neece can give information.

Montgomery—Coal Mining.—A bill has passed the Alabama legislature to incorporate the Allen Creek Coal Co.

Sheffield—Car Shops.—The Memphis & Charleston Railroad Co. (office, Memphis) is building car shops.

ARKANSAS.

Newport—Veneer Factory.—A. Stevely is putting in machinery for the manufacture of veneer material.

Newport—Heading Factory.—Reunel & Empie are putting additional machinery in their heading factory.

Reddick—Irrigating Plant.—Geo. B. Nichols has constructed an irrigating plant.

FLORIDA.

Callahan—Brick-yard.—Fleming & Matthews have a new brick-yard in operation.

Callahan—Grist and Rice Mill.—Higginbotham & Son will erect a grist and rice mill.

Carrabelle—Saw Mill.—Mr. Kelly and others will erect a saw mill.

Eyinston—Moss Mill.—W. H. Smith will erect a moss mill.

GEORGIA.

Barnesville—Water Works.—A system of water works will be built. G. E. Huguley can give information.

Brunswick—Cigar Factory.—The company recently reported as organized by L. Greenwood has been incorporated as the Enterprise Cigar Factory for the manufacture of cigars, etc. The capital stock is \$20,000.

Rome—Furniture Factory.—The New Rome Land Co. is making efforts to establish a furniture factory.

KENTUCKY.

Henderson—Distillery.—The Worsham Distilling Co. has been incorporated by D. C. Worsham, A. J. Worsham and R. D. Reynolds for the manufacture and sale of distilled liquors, etc. The capital stock is \$25,000.

LOUISIANA.

Hammond—Ice Factory.—Leroy Thomas contemplates building an ice factory.*

Tallulah—Cotton Gin.—Humphrey Bros. will rebuild their cotton gin, reported in this issue as burned.

MARYLAND.

Aberdeen—Label Factory.—W. A. Bobb, of Odessa, will erect a factory to print labels and other lithographic work at Aberdeen.

Baltimore—Cracker Factory Company.—The James D. Mason Co. has been incorporated by James D. Mason, C. F. Benchoff, Oscar T. Kemp and L. J. Cherry to manufacture cakes, crackers, etc. The capital stock is \$300,000.

Baltimore—Electric-light, Heat and Power Plant.—The Maryland Electric Co. is to be reorganized into a new company with a capital stock of \$2,000,000 for the erection of an electric plant to supply light, heat and power. J. Frank Morrison, of Baltimore; R. T. McDonald, of Fort

Wayne, Ind.; J. Preston Hix, of New York, and D. E. Evans and J. A. Carr, of Baltimore, are interested.

Bel Air—Flour Mill.—John Moore has remodelled his flour mill to the roller process system.

Chestertown—Creamery and Ice Factory.—A stock company has been formed to establish a creamery and ice factory. Horace W. Beck can give information.

Chestertown—Electric-light Plant.—H. H. Barroll can give information concerning the electric-light company mentioned last week.

Chestertown—Machine Shops.—Machine shops are being erected in Chestertown by Mr. Baumgardner, of Hanover, Pa.

Cooptown—Saw Mill.—Geo. W. Morse has rebuilt his saw mill.

Eyler—Broom Factory.—George Smith will open a broom factory.

Hagerstown—Electric-light Plant.—The Sunrise Manufacturing Co. will put in an electric-light plant.

Hyattsville—Brick Works.—The Hyattsville Brick Co. will be organized to manufacture bricks, etc.

Laurel—Electric-light Plant.—The Electric Light, Power & Heat Co., of Laurel, has been organized with Wm. E. Gilbert, president; J. H. S. Compton, vice-president; J. S. Flannery, secretary and treasurer, and L. A. Ellis, manager. The company has contracted with the Ries Electric Specialty Co., of Baltimore, to put in their system of incandescent electric lighting.

Laurel—Electric-light Plant.—A company has been formed to erect an electric-light plant; L. A. Ellis can give information.

Oakland—Woolen Mills.—N. W. Steel will rebuild his woolen mills reported in this issue as burned.

Washington, D. C.—Publishing company.—The Washington News Publishing Co. has been incorporated in Virginia. The capital stock is \$150,000.

MISSISSIPPI.

Vicksburg—Lumber Mills.—The S. Spengler Manufacturing Co. has been incorporated by A. D. Spengler, E. Spengler, A. Spengler and J. R. Harrison. They have purchased and will operate the Ouellette Lumber Co.'s plant. The capital stock is \$70,000.

Water Valley—Canning Factory.—The Water Valley Canning & Manufacturing Co. has been organized by G. D. Able, J. T. Goodwin, C. R. Cooke, G. D. Brown and others for the purpose of establishing a canning factory. The capital stock is \$60,000.*

NORTH CAROLINA.

Aberdeen—Lumber Mills.—Adam & Co. are erecting large lumber mills.

Burlington—Cotton Mill.—The Windsor Cotton Mill has been improved by adding 2,000 spindles and sixty-eight looms.

Durham—Cotton Mill.—The Durham Cotton Manufacturing Co. will improve its plant by adding new machinery.

Durham—Cotton Mill.—The Commonwealth Cotton Manufacturing Co. has erected an addition to its plant and will add new machinery.

Fayetteville—Water Works.—Messrs. Ferris & Richards, of Jersey City, N. J., will erect water works at Fayetteville.

Henderson—Electric-light Plant.—The Henderson Light & Power Co. has been purchased by J. M. Valentine and others, of Richmond, who will improve the plant by adding new machinery.

Raleigh—Cotton Mill.—The Raleigh Cotton Mill has improved its plant by adding new machinery.

Tarboro—Knitting Mill.—The Riverview Knitting Mills have built an addition to its plant and will add new machinery.

Winston—Cigarette Factory.—W. F. Smith & Son will establish a cigarette factory.

SOUTH CAROLINA.

Bennettsville—Tobacco Factory.—W. D. Evans contemplates opening a smoking-tobacco factory.

Bennettsville—Flour Mill.—A. Manship will erect a flour mill.

Columbia—Sewerage System.—A bill has been introduced in the legislature to incorporate the South Carolina Sewerage Co. The incorporators are A. N. Talley, W. B. Lowrance, T. T. Moore, W. A. Clark, John T. Sloan, Jr., and others. The capital stock is \$30,000.

Columbia—Manufacturing, etc.—A bill to incorporate the Southern Navigation & Manufacturing Co. has been introduced in the legislature.

Table Mountain—Iron Mines.—J. M. Crenshaw and Jesse Roper will probably develop iron mines.

Winnsboro.—The Winnsboro Granite Co. will increase its capital to \$100,000.

TENNESSEE.

Bristol—Novelty Works.—The Bristol Novelty Co. has been incorporated with A. D. Reynolds, president; J. E. Childers, vice-president, and Albert Parlett, secretary and treasurer, for the purpose of manufacturing the Eagle wrench, combination plow, etc.

Clarksville—Canning Factory.—A company has been organized with Jas. M. Bowling, president, to erect the canning factory mentioned last week.*

Dunlap—Flour Mill.—Mr. Mansfield will increase the capacity of his mill.

Kingston—Flour Mill.—J. G. Crumbliss, H. Martin and W. B. Rose are endeavoring to organize a \$25,000 company to erect a roller flour mill.

Memphis—Cooperage and Stave Manufacturing.—The National Stave & Cooperage Stock Co. will erect a factory near Memphis.

Troy—Stave and Spoke Factory.—Vance & Ready have rebuilt their spoke and stave factory that was burned some time ago.

TEXAS.

Caldwell—Electric-light Plant, Water Works, etc.—The Caldwell Water Works, Electric Light & Ice Co. has been incorporated by M. P. Kelly, B. R. Copeland, A. T. Bradshaw and A. J. Rosenthal. The capital stock is \$50,000.

Denton—Electric-light Plant.—The Denton Ice, Light & Water Co. is putting new machinery in its lighting plant.

Fort Worth—Cottonseed-oil Mill.—A cottonseed-oil mill will be established by Mr. Giles and others, of Memphis, Tenn.

Groesbeck—Water Works.—A water works system will be built.

Houston—Basket Factory.—The Omaha (Neb.) Basket Co. will erect a large factory at Houston Heights for the manufacture of baskets, etc. The capital stock is \$500,000.

Houston—Chemical Company.—The Houston Chemical Co., reported last week as organized, has been incorporated; capital stock \$10,000.

Radford—Bridge.—G. T. Kearsley will receive bids until January 10 for the erection of an iron and steel bridge across Connally's branch.

Roanoke—Machine Works.—The Roanoke Machine Works will enlarge its plant, add new machinery and increase the number of its employees.

San Antonio—Machine Shops.—The Alamo Iron Works has erected an addition to their machine shops.

San Antonio.—The Pan-American Coffee Co. has been incorporated by J. P. Cruger, of Newburg, N. Y.; R. B. Thompson, W. C. Rigby, J. S. Irvine and Thomas H. Jacobs, of San Antonio, for the purpose of manufacturing beans of the mesquite tree into articles of food. The capital stock is \$500,000.

San Saba—Flour Mills.—The Steam Milling Co. has been incorporated by N. D. Lidstone, I. H. Martin, W. T. Murray, Thomas Ward and others to erect the roller flour mill lately reported. The capital stock is \$20,000.

Sulphur Springs—Electric-light Plant and Water Works.—An electric-light plant and a water works system will be built in Sulphur Springs.

VIRGINIA.

Big Stone Gap—Investment Company.—The John R. Proctor Investment Co. has been incorporated to improve real estate, etc. The capital stock is \$50,000.

Big Stone Gap—Coal-mining.—The Big Stone Gap Colliery Co. has been incorporated to mine coal and minerals; capital stock \$300,000.

Bridgewater—Flour Mill.—G. W. & E. L. Berlin are building a 50-barrel roller process flour mill.

Buena Vista—Paper Mill.—The Columbian Paper Co. is building an entire new department—a soda process chemical fibre mill (Burgess process), the only one thus far in the South, nothing of the kind being now located further South than Elkton, Md. The company shall make high-grade bleached chemical fibre suitable for writing and fine book-paper manufacturers; will consume forty cords poplar wood per day.

Charlottesville—Land Company.—The Locust Grove Investment Co. has been organized with J. B. Minor, Jr., president; M. Leterman, treasurer, and A. P. Bibb, manager. The company has purchased the Sinclair place for \$39,000, and will improve same.

Daggers—Saw and Grist Mill.—W. B. Bean & Sons are erecting a saw and grist mill near Gala Water.

Dendron—Mercantile Company.—The T. D. Parker Co. has been incorporated to sell merchandise, etc. The capital stock is \$10,000.

Gayton—Eggette Fuel Plant.—The Eggette Fuel Co. is increasing its plant, putting in new power; etc.

Glasgow—Mantel and Grate Works.—A. E. Temple has purchased the mantel and grate works property, and will operate same.

Graham—Woodworking Factory.—The West Graham Woodworking Co. has been incorporated to manufacture building material, etc. The capital stock is \$25,000.

Ivanhoe—Flour Mill.—The erection of a 30-barrel flour mill is probable. The West Ivanhoe Land Improvement Co. can give information.

Ivanhoe—Foundry and Machine Shop.—The New River Mineral Co. is equipping a foundry and machine shop.*

Ivy Depot—Land Improvement Company.—The Ivy Alliance Industrial & Land Improvement Co. has been incorporated. The capital stock is \$10,000.

Marksville—Flour Mill.—The flour mill of Shenk Bros. has been purchased by W. F. Wellhe & Son, and it will be repaired and improved by adding new machinery.

Merrifield—Saw Mill.—M. M. Wakefield will rebuild his recently burned saw mill.*

Norfolk—Soap Factory.—Robert Johnson has purchased the Velline Soap Co.'s plant for \$3,625.

Petersburg—Cotton Mills.—The Matoaca Manufacturing Co. is making extensive repairs to its plant, and improving same by additional machinery.

Petersburg—Cotton Mill.—The Pocahontas Cotton Mill has been improved by adding new machinery, consisting of 1,000 49 spindles and sixty looms.

Richmond—Cotton Mill.—The Old Dominion Cotton Mills will improve its plant by adding new machinery.

Richmond—Rock Quarry.—Lewis Ginter has put in considerable new machinery at his rock quarries.

Roanoke—Electric-light Plant.—The Roanoke Electric Light Co. will increase and improve its plant by additional new machinery.

Stuart's Draft—Flour Mill.—The Stuart's Draft Milling Co. will be organized by R. M. Moffett, E. C. Harnsberger, J. T. Black and others to erect a flour mill with a capacity of 100 barrels daily. The capital stock is \$15,000.

Suffolk—Knitting Mills.—The Suffolk Knitting Mills will erect an addition to its plant and add new machinery.

WEST VIRGINIA.

Charleston—Canning Factory.—Mr. Noblett, of Lancaster county, Va., is here investigating with a view to erect a cannery.

Keyser—Manufacturing Company.—The West Virginia Manufacturing Co. will hold a meeting to increase its capital stock.

Keyser—Furniture Factory.—Richardson Bros. & Co. will rebuild their furniture factory reported last week as burned.

Sattes—Ferry and Wharf Company.—The Sattes Ferry & Wharf Co. has been incorporated by F. A. Sattes, F. H. Sattes, G. E. Sattes and others.

BURNED.

Abbeville, La.—Richard Leblanc's sugar mill, Allen, Md.—W. I. Codd's mills; loss \$3,500.

Bowling Green, Ky.—The Wilford Milling Co.'s flour mills; loss \$50,000.

Camden, W. Va.—The Citizens' Coal Co.'s mining plant and power-house, etc.; loss \$15,000.

Concord, N. C.—Alfred Young's cotton gin.

Henry, Tenn.—J. B. Dinwiddie's saw and grist mill and cotton gin.

La Fayette, Ala.—M. C. Ratford's cotton gin.

Natchitoches, La.—C. E. Greneaux's cotton gin.

Oakland, Md.—N. W. Steele's woolen mills; loss \$15,000.

Plaquemine, La.—The Ice & Cold Storage Co.'s plant; loss \$20,000.

Round Rock, Texas.—John Diebel's cotton gin.

Shelbyville, Tenn.—Mr. Haynie's carriage factory; Mr. Kahl's machine shop.

Tallulah, La.—Humphrey Bros.' cotton gin.

BUILDING NOTES.

Arlington, Texas—Bank Building.—A. J. Rogers will erect a brick bank building.

Ashland, Ky.—Hotel.—A. C. Campbell has begun the erection of a \$30,000 hotel to have all of the modern equipments pertaining to a first-class hostelry.

Baltimore—Bank Building.—The Hopkins Place Savings Bank has let contract to Henry Smith & Sons for the erection of a bank building to cost about \$40,000.

Bellevue (P. O. Newport), Ky.—George Daum has awarded contract to Kennedy & Beyland for the erection of a \$6,000 residence.

Buena Vista, Va.—Hotel.—The Buena Vista Hotel Co. will erect a five-story addition to its hotel.

Carrollton, Ga.—Courthouse.—L. E. Nunn, of Atlanta, has been awarded contract to build the new courthouse at Carrollton at \$25,788.

Charleston, S. C.—Hotel.—Endeavors are being made to organize the South Battery Hotel Co. to erect a \$200,000 hotel. J. M. Eason can give information.

Conway, Ark.—Courthouse.—Rickon & Thompson's plans for a \$20,000 courthouse have been accepted.

Easton, Md.—Church.—An \$8,000 church will be built by the Southern Methodists. Plans have been submitted.

Elizabethton, Tenn.—Hotel.—The Watauga Inn Co. will erect a hotel.

Fort Worth, Texas.—Observatory.—H. E. Chamberlain, of Denver, Col., will erect a \$50,000 observatory in the Fort Worth University.

Gadsden, Ala.—Church.—The Baptists of the city will erect a church to cost \$12,500. Rev. H. W. Williams can inform.

Hampton, Va.—Hotel.—Wm. Lee, of New York, proposes the erection of a \$50,000 hotel in Hampton.

Harrisonburg, Va.—Temple.—Rockingham Union Lodge will erect a Masonic temple. The secretary can inform.

Louisville, Ky.—Hotel.—W. H. Slaughter, Frank C. Carpenter and Augustus Sharpe have incorporated the Victoria Hotel Co. with a capital stock of \$50,000.

Martinsburg, W. Va.—Public Building.—Robert M. Jack & Son, of Canton, Ohio, have received contract at \$49,000 to erect the United States public building at Martinsburg.

Manassas, Va.—Courthouse and Jail.—The plans of Messrs. Teague & Marye have been accepted for the new courthouse and jail to be built at Manassas.

New Decatur, Ala.—Mrs. Smith will erect a \$5,000 dwelling.

New Decatur, Ala.—W. Chamberlain & Co., of Knoxville, Tenn., have prepared plans for a brick church at New Decatur.

New Orleans, La.—Freight Depot.—The Illinois Central Railroad Co. (office, Chicago, Ill.) will erect a freight depot at a cost of \$65,000.

Radford, Va.—Sealed proposals will be received until January 10 for the erection of a brick schoolhouse by W. J. Kenderdine.

San Antonio, Texas.—Ross Kennedy will erect a brick and stone business building, three stories in height, 23x75 feet in size, to cost about \$20,000.

Towson, Md.—Contract for building a department for the insane to the county almshouse has been let to J. J. Willis, of Baltimore, at \$39,950.

Washington, D. C.—Frank L. Harvey will erect a \$20,000 dwelling for Leroy M. Taylor.

Washington, D. C.—N. M. Criswell will erect a brick store and dwelling to cost \$8,000. J. H. Nolan has contract.

Weatherford, Texas.—Grain Warehouse.—R. L. Sandefer will erect a large grain warehouse.

Winston, N. C.—R. R. Crawford & Co. will build a fine store building.

Winston, N. C.—Public Building.—A bill has been introduced in Congress to appropriate \$200,000 for a government building at Winston.

RAILROAD CONSTRUCTION.

Ashland, Ky.—Electric Street Railway.—The Ashland & Catlettsburg Electric Street Railway Co. is progressing rapidly with its line, and will be running early in January.

Augusta, Ga.—Railroad.—Application will be made to the legislature of South Carolina for a charter for a railway to extend from North Augusta, S. C., to Graniteville, Langley and Aiken.

Beaufort, S. C.—Railroad.—A bill to incorporate the Beaufort & Port Royal Street & Suburban Railway Co. has been introduced in the legislature.

Berkeley, S. C.—Railroad.—A bill has been introduced in the legislature to incorporate the Berkeley Railroad Co.

Bowie, Texas.—Railroad.—R. W. Day, of Topeka, Kans., engineer in charge of the Southern extension of the Chicago, Rock Island & Pacific Railroad, writes us that the company has awarded no contracts as yet for the extension from Bowie to Fort Worth, but that it has the matter under consideration and no doubt will build in the near future.

Bragg's, Ala.—Railroad.—The Louisville & Nashville Railroad Co. (office, Louisville, Ky.) has commenced work on a branch extension from Bragg's Tank, near Longview, to Lewis, in Shelby county, a distance of about fifteen miles. The road will pass through a rich timber and ore region, a great deal of which is owned by the DeBardeleben Coal & Iron Co.

Charleston, W. Va.—Railroad.—The Chesapeake & Ohio Railway Co. (office Richmond, Va.) has about completed a survey for a branch road from Gauley Station up Gauley and Meadow rivers and down Muddy creek to Alderson. The

seven miles of grading from Gauley Station up the river, contract for which was let last May, has been completed.

Chattanooga, Tenn.—Railroad.—The Chattanooga Terminal Co., recently chartered to build a railroad from Chattanooga west across the Tennessee river on a bridge which it intends building, through Hamilton, Marion, Sequachee, Blount and Van Buren counties, has purchased right of way from the union depot through the Southern Iron Co.'s property to the Tennessee river from Newman Erb, of New York, for \$61,000.

Cloverdale, Va.—Railroad.—The Cloverdale Iron & Land Co. has graded a branch railroad (narrow gauge) from the main line of the Shenandoah Valley Railroad to its mines near Cloverdale.

Dallas, Texas.—Railroad.—W. R. Robinson, of Alvin, is agitating the construction of a railroad from deep water on the Texas Gulf coast to the line of British possessions west of Duluth, Minn.

Denison, Texas.—Railroad.—The Denison & Northern Railway Co., which was chartered last February to build a railroad from the Red river to Kentucky Town, in Grayson county, has called a meeting of stockholders for the 27th of January next. The purpose of the meeting is to increase the capital stock of the company from \$200,000 to \$2,500,000, and to authorize an issuance of bonds to that amount, necessary for constructing, completing, improving and operating its railway. J. H. Fairbanks is secretary.

El Paso, Texas.—Railroad.—In regard to the commencement of work on the White Oaks Railroad, mentioned in our last issue, Morris R. Locke, of Jerseyville, Ill., writes us as follows: "It is expected that work will be resumed on the White Oaks Railroad, and that it will be completed from El Paso to White Oaks, N. M., as speedily as possible. There are ten miles completed, El Paso to Latoria, and ten miles graded, Latoria to Texas State line."

Florence, S. C.—Street Railway.—Jno. P. Coffin is the proprietor of the Florence Suburban Railroad Co., mentioned last week as applying to the legislature for a charter. The road will probably be electrical after a short time.

Hagerstown, Md.—Electrical Street Railway.—W. C. Seddon, A. Rutherford, J. C. Blackwell and R. H. Edmonds, of Baltimore, are interested in a project to construct an electrical railway in Hagerstown.

Hot Springs, Ark.—Railroad.—Surveys are now in progress for the Hot Springs & Mountain Valley Railroad, and as soon as they are completed contract will be let for its construction. The distance is about twelve miles and the road will be completed by March. Z. W. Ward, Jr., of Little Rock, is general manager.

Houston, Texas.—Railroad.—It is reported that the Missouri, Kansas & Texas Railroad Co. (office, Denison) will extend its road from Houston to Velasco upon the completion of the Boggy Tank extension.

Jacksonville, Ala.—Railroad.—George H. Montgomery, chief engineer of the Tredegar Mineral Railroad, mentioned in our last issue, writes us as follows: "It is expected to extend the Tredegar Mineral Railway north through Cherokee county via the Burke Iron Mountain and Centre, the county seat of Cherokee county, to a point on Chattanooga Southern Railway near Taff or Bristow, Ala. The details are not yet decided, and will not be until surveys are completed. It will be a mineral road, and will also greatly lessen the distance between Jacksonville, Ala., and Chattanooga, Tenn."

Little Rock, Ark.—Railroad.—According to the preliminary survey for the Arkansas Mineral Belt Railroad, it is to extend from West Plains, Mo., on the Kansas City, Fort Scott & Memphis Railroad, to Little Rock, a distance of 175 miles. It is said that work on it will commence in January. The company was chartered in October, and its president is C. P. Huntington, of New York.

Macon, Ga.—Railroad.—Jno. R. Young, of Savannah, purchased the property and franchises of the Macon & Savannah Construction Co. and the Macon & Atlantic Railroad Co. for the account of the bondholders, contractors and some of the creditors. This road is projected from Macon to Colleton, S. C., on Port Royal harbor, and has been built a distance of ten miles and more than seventy-five miles have been graded. A new company, to be called the Atlantic Short Line, will complete the road, and charter for same has already been applied for. The capital stock is to be \$750,000, to be increased to \$1,000,000. The directors named by the petitioners for charter are Jno. R. Young, W. L. Strong, Sol. Stern, Henry Rice, J. F. Hanson, J. L. McKee, H. J. Lamar, R. H. Plant and Lewis Kayton.

Memphis, Tenn.—Railroad.—S. L. Shellenberger, of South McAllister, I. T., president of the Inter-oceanic Railroad Co., which proposes to build from Memphis to Hartford, Ark., is quoted as saying that as soon as the preliminaries are completed work of construction will commence, which will be some time early next year.

Mobile, Ala.—Railroad.—A bill incorporating the Cherokee Mineral Railroad Co. has passed the State legislature.

Morristown, Tenn.—Railroad.—Jas. W. Cain, vice-president of the Unaka & Nolachucky Railway, which is projected from Morristown to Embreeville, has stated that contract has virtually been closed with an Ohio firm for the construction of the road.

New Orleans, La.—Electric Street Railway.—The syndicate reported last week as having effected a purchase of the New Orleans City & Lake and the Crescent City Railways has incorporated under the name of the New Orleans Traction Co., Limited. The capital stock of the company is \$7,500,000, and work will at once be commenced to convert the roads into electric roads. E. E. Denniston is president; M. J. Hart, vice-president, and Henry Seligman, secretary and treasurer.

North Galveston.—Railroad.—The North Galveston, Houston & Kansas City Railroad, which has arranged to connect with the line of the La Porte, Houston & Northern, will meet the latter at Clear Creek, and will have eight miles to grade and a bridge to build, leaving seven miles to be graded by the La Porte Company. The latter company has already let contract for its extension. T. W. Lee, of La Porte, writes us that the completion of this link will make another independent line between Houston and Galveston. It will be the Shore Line, and will probably be completed and open for operation in or about May 1, 1893.

Ozark, Ark.—Railroad.—It is reported that the St. Louis & San Francisco Railroad Co. (office, St. Louis, Mo.) will construct a branch from Ozark through Taney county to Little Rock.

Pensacola, Fla.—Railroad.—S. N. Van Praag, president of the Pensacola & Northwestern Railway, has stated that grading for the road from Pensacola to Henrietta Springs will be commenced very soon.

Savannah, Ga.—Electric Street Railway.—The Suburban & West End Electric Railway Co. has completed arrangements to construct an electric railway.

Savannah, Ga.—Railroad.—D. E. Maxwell, general manager of the Florida Central & Peninsular Railroad Co. (office Jacksonville, Fla.), writes us that contract for building the road to Hart's Road, S. C., has been let to the Southern Supply Co., of Atlanta. The contract provides for 70-pound steel rails and steel bridges, and the completion of the work by September 1, 1893.

Shelby, N. C.—Railroad Bridges.—The Charleston, Cincinnati & Chicago Railroad has let contract to the Phoenix Bridge Co., of Cleveland, Ohio, for the construction of the four iron bridges reported last week.

Standing Stone, Tenn.—Railroad.—The Nashville & Knoxville Railroad Co. (office, Lebanon) has commenced surveying for the extension from Standing Stone to a connection with the East Tennessee, Virginia & Georgia road. Two or more routes will be surveyed.

Washington, D. C.—Electrical Railroad.—A bill has been introduced in Congress to incorporate the Coast & Electric Railway Co. of the District of Columbia.

Washington, D. C.—Railroad.—L. H. Hyer, chief engineer of the Washington & Chesapeake Beach Railway Co., writes us as follows: "The contract for the Washington & Chesapeake Beach Railroad was let December 9 to Godfree & Howe, of New York city. The construction will begin January 15, and we expect to have it in operation in June next. Length of line twenty-seven and three-tenths miles." The road is to extend from Washington to a point on Chesapeake bay.

Washington, D. C.—Electric Railroad.—A bill has been introduced in Congress to incorporate the Washington & Marlboro Electric Railroad Co. of the District of Columbia. The bill names as incorporators James G. Berret, Charles E. Creedy, William I. Hill, George J. Johnson, John A. Luttrell, R. A. Howard, Charles C. Lancaster, James T. Perkins, Archibald M. Bliss and John W. Bell. The company is authorized to build a single or double-track railway beginning at Eighth street and Pennsylvania avenue, southeast, and run on Pennsylvania avenue across the Eastern branch bridge, then on Pennsylvania avenue extended to Bowen road, and along said road to the boundary of the District of Columbia, there connecting with the line of the Prince George's county branch of the Washington & Marlboro Railway. The company is authorized to issue stock to the amount of \$250,000 in shares of \$100 each.

The Berlin Iron Bridge Co., of East Berlin, Conn., has the contract for three new iron buildings and iron roofs for the East River Gas Co., to be built at Ravenswood, L. I.

AMONG the contracts recently closed by N. J. Williams, of Dallas, Texas, agent for water works machinery, mill supplies, etc., were the following: Standpipe, 110x15 feet, for Temple; standpipe, 110x12 feet, for Groesbeck; pumps, hydrants, valves, boilers and electric-light plant for Sulphur Springs; two miles of cast-iron pipe for Uvalde Water & Power Co., and electric light machinery for the Denton Ice, Light & Water Co., Denton, Texas.

MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Barrel Machinery.—The Border City Wood Package & Canning Co., Fort Smith, Ark., wants to buy machinery for making slack-barrel material.

Belting.—John W. Stovall, Stovall, N. C., will want belting.

Belting.—M. M. Wakefield, Merrifield, Va., will buy belting.

Boiler.—A. K. Robins, Baltimore, Md., wants a forty horse-power vertical boiler, new or second-hand, in good order.

Boiler.—The Deer Creek Coal Co., Patton, Ala., wants prices on a twenty-five horse-power boiler.

Boiler and Engine.—M. M. Wakefield, Merrifield, Va., will buy boiler and engine.

Boiler and Engine.—The New River Mineral Co., Ivanhoe, Va., wants a twenty-five horse-power engine and boiler.

Boring and Turning Machine.—The New River Mineral Co., Ivanhoe, Va., wants boring and turning machine to take in 52-inch and bore 6-inch hub.

Brick Machinery.—W. H. Cross, Asheville, N. C., wants to correspond with manufacturers of brick machinery.

Canning Machinery.—Quotations on canning machinery are wanted by James M. Bowling, Clarksville, Tenn.

Canning Machinery.—The Union City Canning Co., Union City, Tenn., wants canning machinery. Address H. Mayers, secretary.

Canning Machinery.—The Water Valley Canning & Manufacturing Co., Water Valley, Miss., wants a full outfit for canning 10,000 cans daily. Address G. D. Able, treasurer.

Crane.—The Totten & Hogg Iron & Steel Foundry Co., Pittsburg, Pa., is in the market for a 15-ton second-hand iron or wooden hand crane.

Distilling Outfit.—The Excelsior Distilling Co., Box 146, Gadsden, Ala., wants to correspond with manufacturers of distilling outfits.

Drill Press.—The New River Mineral Co., Ivanhoe, Va., wants a 32-inch drill press, back-geared, automatic feed, quick recovery.

Electric Railway.—W. H. Cross, Asheville, N. C., wants to correspond with manufacturers of electric railway equipment.

Electrical Supplies.—The Landa Electric-Light & Power Co., New Braunfels, Texas, wants to purchase supplies.

Engine.—The Deer Creek Coal Co., Patton, Ala., wants prices on a twenty horse-power engine.

Heating Apparatus.—W. J. Edbrooke, Washington, D. C., will receive sealed proposals until January 5 for all the labor and materials required for the steam-heating and ventilating apparatus for the United States courthouse, etc., building at Helena, Ark. (See adv.)

Heating Apparatus.—W. F. Gill, Box 694, Paris, Texas, wants information and prices on heating apparatus.

Hoisting Engine.—T. & H. Williams, Arvonia, Va., want a twenty-five to thirty horse-power hoisting engine, double cylinder, double drum, new or second-hand.

Hydraulic Press.—The New River Mineral Co., Ivanhoe, Va., wants a hydraulic press for 30-inch wheel.

Ice Machine.—Leroy Thomas, Hammond, La., wants bids on a 5-ton ice machine.

Ice Machine.—W. D. Williams, Dallas, Texas, wants a 5-ton ice plant.

Knitting-mill Machinery.—A. W. Stockell, president, Florence, Ala., wants to correspond with manufacturers of knitting-mill machinery.

Lathes.—The New River Mineral Co., Ivanhoe, Va., wants 18-inch to 20-inch swing lathes.

Laundry Machinery.—W. J. Williams, Dallas, Texas, wants steam laundry machinery.

Power Hammer.—The Totten & Hogg Iron & Steel Foundry Co., Pittsburg, Pa., is in the market for a second-hand 500 to 800-pound power hammer complete in first-class order.

Press.—A. C. Ulmar, Savannah, Ga., will want a hay press.

Rails.—R. B. Crawford, Atlanta, Ga., wants prices on three miles of second-hand 35-pound steel rails and fixings.

Saw Mill.—John W. Stovall, Stovall, N. C., will want saw-mill outfit.

Saw Mill.—M. M. Wakefield, Merrifield, Va., will buy saw-mill outfit.

Shingle Machine.—M. M. Wakefield, Merrifield, Va., will buy shingle-slat machines.

Tenoner.—The Roanoke Wood Novelty Co., Roanoke, Va., wants a double-head tenoner, No. 1 or 2, with two capes, and a No. 1 or 2 power-feed mortiser.

Threshing Machine.—A. C. Umar, Savannah, Ga., wants a threshing machine.

Water Works.—G. E. Huguley, mayor, Barnesville, Ga., wants bids until January 15 on construction of a complete water-works system. Plans and specifications can be seen at the mayor's office.

F. B. Cale, of Newnan, Ga., wants prices on watchmen's clocks or time detectors.

Messrs. B. A. Morgan and A. G. Furman, of Greenville, S. C., want quotations on coil hoops for barrels, kegs, etc.

SOUTHERN FINANCIAL NEWS.

New Banks.

Allendale, S. C.—John P. Gray, Ben Martin, J. O. Bunson, J. J. Turse and others have chartered the Carolina Midland Banking Co. to establish a bank. Their capital is \$25,000.

Arlington, Texas.—R. F. Davis, of Solomon City, Kansas, and A. J. Rogers, of Arlington, will organize a bank.

Baltimore, Md.—A movement is on foot for the organization of a new clearing-house.

Beeville, Texas.—Luther B. Creath is organizing a national bank.

Brunswick, Md.—G. F. Eamien, J. W. Hileary, A. G. Horine, O. Horsey and others have chartered the Savings Bank of Brunswick.

Camden, Ala.—A bill to incorporate the Wilcox County Bank has passed the State legislature.

Columbia, S. C.—Senator Smythe has introduced in the legislature a bill to incorporate the German-American Trust and Savings Bank to have a capital stock of \$40,000.

Davis, W. Va.—The First National Bank of Davis has filed application with the comptroller of the currency for authority to organize.

Fort Worth, Texas.—Application has been filed with the comptroller at Washington, D. C., for authority to organize the American National Bank of Fort Worth.

Gainesville, Ga.—J. H. Hunt will establish a private bank.

Hot Springs, Ark.—It is said that a new national bank will be organized in Hot Springs. F. M. Smith, of Malvern, can give information.

Jasper, Fla.—A bank will be established at Jasper at an early date. M. M. Caldwell can give information.

Macon, Ga.—Arnold & Stewart will establish a bank, beginning business with a capital of \$50,000.

Mt. Airy, N. C.—The First National Bank of Mt. Airy has filed application with the comptroller at Washington, D. C., for authority to organize.

Port Lavaca, Texas.—The establishment of a bank is talked of.

Portsmouth, Va.—The People's Bank has been organized with a capital of \$52,300. J. F. Crocker, John H. Hume, John T. King, F. D. Gill and others have been elected the first board of directors.

Tallahassee, Fla.—Isbell & Co., bankers, mentioned last week as applying for authority to organize the Isbell National Bank, will commence business on January 16 with \$50,000 capital and \$50,000 surplus and the following officers: W. P. Armstrong, of Selma, president; R. L. Ivey, vice-president, and W. H. Boynton, cashier.

Williamson, W. Va.—The Bank of Williamson, previously reported, has organized and will soon commence business. G. W. Lawson is president; J. C. Williamson, vice-president, and Hiram Williamson, cashier; capital stock \$50,000.

Asheville, N. C.—F. Stilleleather, E. C. Chambers, J. H. Weaver, P. A. Cummings, J. R. Dubose and others have organized a branch of the American Mutual Building and Savings Association.

Baltimore, Md.—The Maryland Coal Co. has declared a semi-annual dividend of 1 1/4 per cent.

Birmingham, Ala.—The stockholders of the Sloss Iron & Steel Co. of Birmingham, Ala., have voted to fund the consolidated income mortgage bonds at the rate of 4 1/2 per cent.; to authorize the issue of negotiable bonds not exceeding \$2,000,000 for that purpose, and to secure the same by a mortgage on the property. It was also voted to issue \$300,000 of stock heretofore ordered to be cancelled.

Carrollton, Ga.—The Merchants and Planters' Bank has declared a dividend of 8 per cent. and passed \$15,000 to its surplus.

Carrollton, Ky.—The Carrollton Savings and Loan Association has declared a dividend of 4 per cent.

El Paso, Texas.—The city will not hold an election to vote upon issuing \$130,000 of bonds, as we stated last week, as the council has repealed the ordinance regarding same. A new ordinance calling for an election upon \$205,000 of bonds has been presented. The mayor can inform.

Greensboro, N. C.—The Bank of Guilford, of Greensboro, has declared a semi-annual dividend of 4 per cent.

Grove Hill, Ala.—A bill to authorize the county commissioners of Clarke county to issue \$15,000 of bonds has been introduced in the legislature. County clerk can probably inform.

Huntsville, Ala.—The West Huntsville Cotton Mills Co. is offering for sale at the Farmers and Merchants' National Bank \$50,000 of its first mortgage gold bonds, bearing 6 per cent. interest and payable semi-annually.

Knoxville, Tenn.—W. P. Chamberlain, M. O. French, J. L. English and others have chartered the Franklin Savings and Loan Association.

Lumpkin, Ga.—A bill has been introduced in the legislature to authorize the county commissioners of Stewart to issue bonds to the amount of \$25,000. The county clerk can inform.

Montgomery, Ala.—The committee on finance has recommended that the city council petition the general assembly for authority to issue \$250,000 of bonds for sewers, schools, paving, etc. The mayor can inform.

New Orleans, La.—The Metropolitan Bank has declared a semi-annual dividend of 4 per cent.

New Orleans, La.—The New Orleans National Bank has declared a semi-annual dividend of \$20 per share.

Paducah, Ky.—The American-German National Bank, which has had its corporate existence extended to 1912, has a capital stock of \$230,000, a surplus of \$50,000 and undivided profits of \$15,000.

Princess Anne, Md.—The county commissioners of Somerset county, under the authority of an act of the last legislature, have determined to issue 100 bonds, each for the sum of \$500 and each payable in forty years and bearing interest at the rate of 4 per cent. per annum, payable semi-annually, and each bearing date on the 1st day of April, 1893. The purpose of the loan is to improve the public roads. The county clerk can inform.

Raleigh, N. C.—The issuance of \$50,000 of bonds for street improvements is being talked of. The mayor can be addressed for particulars.

Richmond, Va.—The Citizens' Building and Loan Association No. 8 has been incorporated with a capital stock of \$50,000.

Roanoke, Va.—A local board of the Atlantic Savings and Loan Association, of Syracuse, N. Y., has been organized in Roanoke. J. P. Hawkins is president, and Oscar Derr, secretary and treasurer.

Savannah, Ga.—The Standard Manufacturing & Commission Co. has declared a dividend of 8 per share.

Sparta, Ga.—The city will issue schoolhouse bonds to the amount of \$10,000, running thirty years and bearing 6 per cent. interest. They will be offered for sale about January 1. E. A. Rozier can give information.

Sumter, S. C.—A bill to authorize Sumter to issue bonds for erecting a city hall has been introduced in the State legislature. The mayor can doubtless give information.

Varnville, S. C.—A bill authorizing Varnville to issue improvement bonds has been introduced in the legislature. The county clerk can give information.

Wheeling, W. Va.—The Wheeling Iron & Steel Co. has filed a deed of trust to secure an issuance of \$500,000 of bonds.

Wheeling, W. Va.—Geo. Loos, Geo. Cuddle, S. G. Tomlinson, E. A. Schoen, H. H. Harrison and others have incorporated the West Virginia Savings and Building Association; capital stock \$500,000.

Wilmington, N. C.—The Navassa Guano Co. has declared a dividend of 6 per cent.

TRADE NOTES.

The factory of the United States Mineral Wool Co., at Stanhope, N. J., was totally destroyed by fire on December 1, with all the stock on hand. The company started to rebuild at once, so as not to delay orders, and hopes to be in running order by latter part of current month.

The Smith-Courtney Co., of Richmond, Va., recently sold a large rock crusher, steam drills and necessary requisites to Major Lewis Ginter for use in his extensive quarry. The same company has furnished the Eggett Fuel Co. at Gayton, Va., with engines, etc., which it is adding to its equipment.

The Akron Tool Co., of Akron, Ohio, has supplied the Georgia Southern & Florida Railway, the Alabama Midland Railway and the Boston & Maine Railway with the McNeil patent charging barrow for their coal stations. These barrows are standing in high favor with railroad companies who have tried them for this purpose.

The Davidson Ventilating Fan Co., of Boston, Mass., has issued a neat little catalogue illustrating and describing the fans which it makes. Full descriptions of the two systems, forcing air into or exhausting it from a building, are given. A number of useful tables, giving the diameter of fans required for certain purposes, the speed, volume of air, size of pipe, etc., will prove of value to anyone expecting to install this system. In the appendix are shown a number of illustrations of prominent buildings in which the system is in use.

The Soule Steam Feed Works, Meridian, Miss., has recently made shipments of steam feeds for saw mills to the following concerns: Lewis A. Davis & Bro., King's Ferry, Fla.; Hicks & Bro., Tenaha, Texas; Leaf River Mill Co., Hattiesburg, Miss.; George D. McElwee, Gloster, Miss.; Moorehouse Lumber Co., Gallion, La.; Frank Messenger, Randolph, Me.; W. S. Hoskins, Brookhaven, Miss.; Adams Bros., Frank Chichering & Co., Bucyrus, Ohio; Martin County Lumber Co., Everetts, N. C.; Charles E. Slater, Colebrook River, Conn. The following machines have been on order of Curtis & Co. Manufacturing Co., of St. Louis, Mo., agents for the Soule steam feed: Mast, Spangler & Kalbach, Poplar Bluff, Mo.; Jones & McPherson, Earle, Ark.; S. Spengler, Vicksburg, Miss.; Curtis & Co. Manufacturing Co., St. Louis, Mo.; Stevens Lumber Co., Dyersburg, Tenn.; Bradford & Randles, Randles, Mo.; Lacombe Lumber Co., of LeCompte, La.; Ashdown Lumber Co., Ashdown, Ark.; Curtis & Co., Chicago, Ill.

The Walburn-Swenson Co., which has been for the past fifteen years operating the Fort Scott Foundry and Machine Shops, Fort Scott, Kansas, has removed its entire plant to Chicago. In a circular letter to their old patrons they state that the removal to a more central location was found necessary to best meet the requirements of their business, which within the last few years has developed largely into the manufacture of improved machinery that finds a market mostly in the Eastern and Middle States and in the export trade. Their new shops are located at Chicago Heights, where they have erected new buildings on the same general style as the old works, but twice the size. These have been equipped with all the machinery from the Fort Scott plant and a great deal of new, which will double their capacity. They propose to give special attention to the manufacture of machinery for sugar plantations, concentration of ores, packing-houses and vacuum evaporation. The removal has been complete, including their experimental concentration works and their entire stock of patterns.

OPPORTUNITIES FOR INVESTMENT

We shall be pleased to answer communications and give information concerning the following opportunities for investment. Address all correspondence to the MANUFACTURERS' RECORD, Baltimore, Md., and be particular to give the number of the advertisement to which you refer.

No. 6.—PHOSPHATE LAND near Eureka, Fla., in the phosphate belt. It is heavily timbered with long-leaf pine; also a small tract near Fort Meade, Fla. Several small tracts in Marion, Orange, Lake, Polk, Pasco and Putnam counties, Fla., suitable for orange and vegetable growing.

No. 7.—A MANUFACTURING COMPANY in Texas desires to place \$28,000 ten-year 8 per cent. mortgage bonds, the total issue being \$60,000, of which \$32,000 has already been sold. The proceeds are to be used for final payments on machinery and for working capital. The bonds are secured by the entire property of the company, consisting of factory building, machinery and real estate, all of which has a clear title and is free of any incumbrance.

No. 8.—PHOSPHATE LAND.—600 acres pebble phosphate land within one and one-half miles of two important and competitive railroads. Extensive deposits in sand and marl matrix from two to fifteen feet deep, and ranging from 30 to 80 per cent. pebble. Analyses show from 60 to 80 per cent. phosphate of lime.

No. 9.—A tract of land located in the suburbs of Macon, Ga., and admirably adapted to manufacturing purposes, is offered for sale at reasonable price. The property is at the junction of three railroad lines, has abundant water supply, labor can be obtained cheaply, and all conditions requisite for industrial enterprises are present.

No. 10.—About 10,000 acres of mineral and timber land in one tract in North Carolina can be purchased cheap. The minerals are copper, iron, silver and nickel.

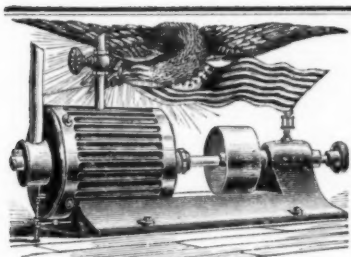
No. 11.—A tract of about 10,000 acres of timber land near Bristol, Tenn. Contains also several large deposits of iron ore which will soon be accessible by railroads now under construction.

No. 12.—About 17,000 acres of coal and timber land in Scott and Wise counties, Virginia, near to both the Norfolk & Western and South Atlantic & Ohio Railroads.

No. 13.—A copper ore property is for sale in North Carolina. There is an extensive deposit of ore upon which some development has been done with results that indicate the existence of a valuable property.

TABLE OF CONTENTS.

	Page
The Nicaragua Canal and American Commerce.....	393
Atlanta is the South's New York.....	394
The Marble Region of Knoxville, Tenn.....	394
Toronto Meeting of Mining Engineers.....	394
Progress of the World's Fair.....	395
World's Fair Notes.....	395
TEXTILES:	
How to Run a Card-Room in a Cotton Mill.....	396
Southern Textile Notes.....	396
RAILROAD NEWS:	
The News of Wall Street.....	397
Southern Railroad Notes.....	397
PHOSPHATES:	
Canadian Apatite.....	398
Phosphate News from the Anthony Region.....	398
Fertilizers in the Bahamas.....	398
Phosphate Markets.....	398
Phosphate and Fertilizer Notes.....	398
Air Compressor for Moving Acids (Illus.).....	399
General Notes.....	399
EDITORIAL:	
The Alabama Geological Survey.....	400
The Coming Rice Crop.....	400
Georgia Central Reorganization.....	400
Anti-Railroad Sentiment in the South.....	401
Savannah's Harbor a National Benefit.....	401
Business Improvements in Harriman.....	401
Anti-Corporation Grangerism.....	401
MECHANICAL:	
Notes on Machine Shop Practice.....	402
Buchanan Rock and Ore Breaker (Illus.).....	402
The Hayden Patent Pipe Wrench (Illus.).....	402
Variety Hand Elevator (Illus.).....	403
New Steel Garden Rake (Illus.).....	403
Mount Savage Fire-Bricks.....	403
Improvement in Real Estate.....	403
ELECTRICITY:	
Baltimore's New Electric Company.....	404
Spencer Spark Arrester (Illus.).....	404
Direct Coupled Engine and Dynamo (Illus.).....	404
New Electric Mining Locomotive (Illus.).....	404
LUMBER:	
Southern Lumber and Shingle Association.....	405
Sullivan Lumber Co.....	405
Four-Saw Iron Bench (Illus.).....	405
Improved Self-Feeding Rip-Saw Table (Illus.).....	405
Southern Lumber Notes.....	406
Lumber Market Reviews:	
New York.....	406
Baltimore.....	406
Norfolk.....	406
Mobile.....	407
Charleston.....	407
Savannah.....	407
Pensacola.....	407
Memphis.....	407
Beaumont.....	407
IRON MARKETS:	
Philadelphia.....	408
Wheeling.....	408
Chicago.....	408
Cincinnati.....	408
St. Louis.....	408
Louisville.....	408
Cotton Market.....	408
COAL AND COKE:	
Coal Waste and Its Remedy.....	409
Making Coke in Transit.....	409
Coking Coal from the Upper Banner Seam.....	409
Coal and Coke Notes.....	409
Southern Iron Notes.....	409
CONSTRUCTION DEPARTMENT:	
New Enterprises.....	410
Building Notes.....	410
Railroad Construction.....	411
Machinery Wanted.....	411
Southern Financial News.....	412
Trade Notes.....	412
Business Opportunities.....	412



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SOLICITORS OF PATENTS.

For the convenience of a large number of readers of the MANUFACTURERS' RECORD who require the services of reliable Patent Attorneys, the appended directory is given. Those of our readers who may correspond with the Attorneys here mentioned, will confer a favor upon both advertiser and publisher by mentioning the MANUFACTURERS' RECORD.

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WANTED—FOREMAN for Architectural and Ornamental Iron Works. Must have experience, recommendations, experience in handling men, be systematic and accurate. State salary and address P. O. BOX No. 182, Roanoke, Va. D16

WANTED—Common and Press Bicklers. Only good workmen need apply. Address VALENTINO, BROWN & CO., Wilmington N. C. D23

WANTED—A FOREMAN for small Machine Shop in the South, manufacturing heavy Saw Mill Machinery; must be thoroughly up in modern shop practice, have good executive ability, understand methods of producing work cheaply. Give reference and state age, experience and salary expected. Address "PROGRESS," care MANUFACTURERS' RECORD. D16

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WANTED TRAVELING SALESMAN who is thoroughly posted on Automatic Engines. Must be a hustler. Good position for the right party. State references and answer quick. Address "A 25," care 535 The Rookery, Chicago. D16

WANTED—A PRACTICAL FOREMAN for Splint Coal Mine in W. Va., about to introduce electrical cutting machinery. Must be a thorough miner and understand the inside working. Address "WAYNE," care of MANUFACTURERS' RECORD. D16

WANTED—Position as Draughtsman by a sober, industrious, and reliable young man, graduate of a Technical School of high standing. Also familiar with office work. References furnished. Address "P. B." care of MANUFACTURERS' RECORD. D16

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WANTED—Young man (married) desires position as time-keeper or foreman on construction work—railroad preferred—in south of United States or Mexico. Can speak Spanish, and have had 4 years experience in United States and Central America. Can give all references. Address H. care MANUFACTURERS' RECORD. D16

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PROPOSALS.

UNITED STATES ENGINEER OFFICE, NEWPORT, R. I., November 26, 1892. **SEALED PROPOSALS**, in triplicate, for dredging in Newport Harbor, R. I., will be received at this office until 12 M., noon, on the 10th day of January, 1893, and then opened. The attention of bidders is invited to the Acts of Congress approved February 26th, 1885, and February 23d, 1887, Vol. 23, page 332, and Vol. 24, page 414, Statutes at Large, and the Act of August 1, 1892, Sections 1 and 2 (Public No. 193). The United States reserves the right to reject any or all proposals and to waive any informalities. Full information furnished on application. W. H. BIXBY, Captain Corps of Engineers, U. S. Army.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C. December 3, 1892. **SEALED PROPOSALS** will be received at this office until 2 o'clock P. M., on the 28th day of December, 1892, and opened immediately thereafter, for all the labor and material required for the approaches to the U. S. Courthouse and Postoffice building at Birmingham, Ala., including pipe railing at a ca., in accordance with the drawings and specifications, copies of which may be had at this office or the office of the Superintendent at Birmingham, Ala. Each bid must be accompanied by a certified check for a sum not less than 2 per cent. of the amount of proposal. The right is reserved to reject any or all bids or to waive any defect or informality in any bid, should it be deemed in the interest of the Government to do so. All bids received after the time stated will be returned to the bidders. Proposals must be enclosed in envelopes, sealed and marked "Proposals for Approaches to the U. S. Courthouse and Postoffice Building at Birmingham, Ala.," and addressed to W. J. EDBROOKE, Supervising Architect.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C. December 6, 1892. **SEALED PROPOSALS** will be received at this office until 2 o'clock P. M., on the 5th day of January, 1893, and opened immediately thereafter, for all the labor and materials required for the low-pressure, return-circulation, steam-heating and ventilating apparatus, &c., for the U. S. Courthouse, Postoffice, &c., building at Helena, Arkansas, in accordance with the drawings and specifications, copies of which may be had on application at this office or the office of the Superintendent at Helena, Arkansas. Each bid must be accompanied by a certified check for a sum not less than 2 per cent. of the amount of the proposal. The right is reserved to reject any or all bids or to waive any defect or informality in any bid, if it be deemed in the interest of the Government to do so. All proposals received after the time stated will be returned to the bidders. Proposals must be enclosed in envelopes, sealed and marked "Proposal for the Low Pressure, Return Circulation, Steam-Heating and Ventilating Apparatus for the U. S. Courthouse, Postoffice &c. at Helena, Arkansas," and addressed to W. J. EDBROOKE, Supervising Architect.

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RECEIVER'S SALE.

In pursuance of an order granted by the Hon. Henry C. Roney, Judge of the Superior Court of Richmond county, sitting at Chambers, October 15th, 1892, in the case of Stewart Phinzy versus the Algernon Mill, the Summerville Mills, Chas. G. Goodrich and James Tobin, trustees, and Robt. H. May and James E. Harper, trustees—to which order all the named defendants consented except the Summerville Mills, which is practically a dissolved corporation, with no officer on whom service could be made, will be sold at public outcry, free from all liens, (which will attach to the proceeds of sale,) in front of the door of the Court House of Richmond county, in the city of Augusta, the first Tuesday in January, 1893, the following property to-wit:

THE ALGERNON MILL, FORMERLY THE SUMMERVILLE MILLS.

The property thus offered for sale is more fully described as follows, to-wit:

All that tract or parcel of land, situate lying and being in the State of Georgia, county of Richmond, and in the corporate limits of the city of Augusta, between the Augusta Canal (from which it is separated by a street or road) and the Savannah river; having a front on said street or road, which divides it from the canal, of six hundred (600) feet, and extending thence at right angles to said street, between parallel lines running north 73 degrees east to the Savannah river, said tract or parcel of land containing thirteen and three tenths acres, more or less, and originally composing two adjoining tracts, and the most easterly being known as the old Russell & Simmons' tract, the same having been conveyed to Russell & Simmons by deed, dated March 4th, 1873, by the City Council of Augusta, and recorded in book A A A, folios 439 to 441 of the proper office, and conveyed by C. H. Sibley, Sheriff of said county, to the Summerville Mills, August 5th, 1879, recorded in the proper office in book H H H, folios 641-2-3; the westerly tract having been conveyed to the Summerville Mills by the City of Augusta by deed, dated July 25th, 1879, and recorded in the Clerk's office of the Superior Court of said county in book H H H, folios 643-4-5—special reference being herein had to all of said deeds and the plats thereunto attached for a more complete description of said premises.

Together with all the improvements and machinery of every sort now in and on said premises, to-wit:

Cotton Mill, equipped with automatic sprinklers and electric lights, about five thousand spindles and one hundred and fifty four box looms, with what is thought to be the necessary machinery, belting, shafting, pulleys, etc., to manufacture checks, plaids and cotton rope. The machinery consists also of a Hercules water wheel, about two hundred and twenty five horse power, dynamo, elevator, fire pump and an eighty horse power return tubular boiler.

Main building fifty-four by two hundred feet, brick, tin roof, three stories high, containing water tank of 5,200 gallons.

Picker building attached to main building, brick, tin roof, two stories high, thirty-two by fifty-six, and attached to same, shed with tin roof.

Dye house, brick, tin roof, one story high, about thirty-four by seventy four.

Boiler house, brick, tin roof, one story high, about twenty-five by forty-five.

Warehouse, dye room and office, brick, tin roof, one story high, about thirty-seven and six-tenths by one hundred and fourteen.

One large one story frame and shingle-roof barn about forty by thirty five.

One-story frame and shingle roof waste house about ten by thirty.

One brick and tin roof store house, one-story high, about fifteen by fifteen, formerly used as gas house.

Eight one story frame and shingle-roof operative houses, four rooms each, on south side canal.

Ten one-story frame and shingle-roof operative houses, four rooms each, north side canal.

Office furniture, safe, scales, two drays, cart and farming utensils.

Small stock of mill supplies.

Also all the corporate franchise of the Summerville Mills and the Algernon Mill.

The water contract, which will be assigned to purchaser, is in perpetuity at five 50-100 dollars per horse power per annum.

Terms cash, and the purchaser will be required to pay in cash ten per cent. of his bid at the time the same is received, or the property will be again offered for sale at the same time and place.

C. G. GOODRICH, Receiver.

RICH GOLD MINES.

I have in my hands two gold mines, easily accessible, in the United States of Colombia, South America, with ore of the most extraordinary richness, some of which carries as much as three thousand dollars (\$3,000) in gold to the ton, and all being of high grade.

These mines are of ancient discovery and were worked with great profit for a long period, being only abandoned on account of political troubles before and after the war of liberation.

These troubles have been happily settled for over a quarter of a century, and the Colombian Republic is based upon the theory of and similar to our own government, with civil and religious liberty and equal rights to all, and is as stable as any government in the world.

These mines are so richly endowed with auriferous material, from the easily-worked sand, gravel, and dirt, (carrying virgin dust and nuggets), to the fissure veins of free milling quartz, that when properly equipped a profit of ten thousand dollars (\$10,000) a day or over three million dollars (\$3,000,000) annually is a very low and conservative estimate.

There is an abundance of timber and unailing water power, with a genial and healthy climate.

It is proposed to organize this property on a basis of five million dollars (\$5,000,000), upon which there can be dividends earned of 60 per cent. or more, and the parties furnishing the original capital in small or large sums for this organization, which will be about twenty five thousand dollars (\$25,000), will be let in on a basis of two and a half cents (2½c.) on the dollar, with the privilege of purchasing pro rata at five cents (5c.) on the dollar a sufficient amount to give them a controlling interest if they so desire.

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One 40-in. 2 Beater Breaker Lapper.
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Ten 40x48-in Full Roller Cards, with quick Combs and Coilers; Doffers 24x40 in.

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Two 50-spindle Subbers, 10x5.

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Twenty-four Spinning Frames, 1½-in. Ring, double adjustable, 6-in. Traverse, Doyle Separators, Jencks Clearer, Short Boss Roll.

Two 100 spindle Spoilers.
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All in excellent condition.
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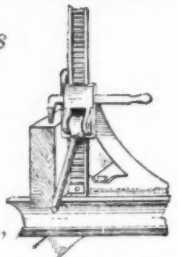
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One 30-inch Whitin Lapper, two Beaters.
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One W. C. Boone Rope Machine and Former, complete with Collier.
Ten Spinning Frames, 120 Spindles each, 1½-inch ring, 2½-inch space, 5-inch traverse.
One Drum Spooler, 48 Spindles.
One Upright Spooler, Howard & Bullough, 98 Spindles.
Four 54-inch Reels, 45 Spindles each.
The above machinery is in good condition and will be sold very low. Write to

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For Sale in large tracts. Write to
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For Sale. A Rare Chance.

The Real Estate and Buildings of the Ft. Scott Foundry and Machine Works Co., at Ft. Scott, Kansas.

The Most Successful Foundry and Machine Shop Plant and Best Location in the West.

The company owning and operating this plant continuously and very profitably for the past fifteen years, having brought out some patented specialties, that are sold mostly in the Eastern States and also for export, were compelled, on this account, to locate farther east, and now have under construction at Chicago Heights, Cook County, Illinois, with largely increased capacity, the buildings for their new plant, and will remove all the machinery in their Ft. Scott Works to Chicago about the 1st of December next.

The buildings are practically new, having been erected in 1886, from the most modern and approved plans of foundry and machine buildings, are of ample dimensions for large capacity, well lighted, arranged for traveling cranes throughout; location the best in the city; on about thirteen acres of high ground immediately within the junction, and connected by switches with all the systems of railways entering Ft. Scott.

Ft. Scott has long been celebrated for cheap fuel, cheap living and a cheap and very desirable class of both skilled and common labor.

The business was established here twenty-three years ago, and the works have never been closed. A large general foundry and machine shop trade comes to this city almost daily from half a dozen States and territories; is in close proximity to the great coal, zinc and lead regions of Missouri, Kansas and Indian Territory.

A Rare Opportunity for a Few Practical Men to Make a Fortune.

The property will be sold at a great bargain, and upon easy terms.
Photos of the works, together with sizes and plans of buildings and full particulars will be forwarded on application. Address

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PLANERS.**

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1 Planer, planes 16 ft. long, 62 in. x 48 in.
1 Planer, planes 5 ft. 24x24 in.
1 Planer, planes 6 ft. 32x25 in.
1 Planer, planes 8 ft. 30x30 in.
1 Planer, planes 4 ft. 24x24 in. [not screw cut]
1 Engine Lathe, 9 ft. bed, 28 in. swing screw feed
1 Engine Lathe, 12 ft. bed, 22 in. swing.
1 Engine Lathe, 12 ft. bed, 22 in. swing.
1 Lathe, Boring and Turning, 15 ft. bed, 8 1/2 in. swg.
1 Engine Lathe, 20 ft. bed, 24 in. swing, A1.
1 Engine Lathe, 11 ft. bed, 22 in. swing.
1 14 ft. Vertical Boring Mill.
1 26-in. Stevens' Pulley Lathe.
1 Automatic Rack-Cutting Machine.
1 20 in. stroke Friction Shaper.
1 475 lbs. Merrill Pattern Drop Hammer.
1 11 ft. 24 in. Stover Dimension Planer.
Send for list Second-hand tools.

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ENGINE LATHES.—62 inches x 22 feet; 88 in. x 31 ft.; 50 in. x 20 ft.; 48 in. x 18 ft.; 42 in. x 12 ft.; 32 in. x 12 ft.; 29 in. x 15 ft.; 24 in. x 28 in. x 20 ft.; 1 each 24 x 10 ft., 12 ft. and 16 ft.; 1 each 17 in. x 6 and 8 ft.; 1 each 16 in. x 6, 8 and 10 ft.; 1 each 14 in. x 6 and 8 ft.; 6 12 in. x 5 ft.; 2 each 11 in. x 4 and 5 ft.; 2 each 10 in. x 4 ft., power or foot-power; 1 16 in. x 6 ft., 15 in. x 6 ft., 14 in. x 5 ft. Fox Monitor Lathes; 1 15 in. x 6 ft. Square Arbor Fox Lathe; 1 each 12 in. x 5 ft., 14 in. x 6 ft., 15 in. x 6 ft., 18 in. x 6 ft. Turret Lathe; 1 each 14 in. x 6 ft., 16 in. x 6 ft., 18 in. x 6 ft. and 8 ft. 21 in. x 8 and 10 ft. Engine Lathe Taper.
1 Iron Planer, 16 in. x 16 in. x 3 ft.
1 Planer, 20x20 in. x 4 ft. and 22x22 in. x 5 ft.
1 " 24x24 in. x 5 1/2 and 6 ft.
1 " 30x30 in. x 6 ft.
1 " 32x32 in. x 10 ft. 42x36 in. x 12 ft.
1 " 36x28 in. x 10 ft.
1 " 42x24 in. x 22 ft. and 50x30 in. x 17 ft.
1 " 30x30 in. x 9 ft., with one head.
1 " 42x42 in. x 12 ft., with two heads.
Friction Shapers, 15 in., 22 in.
Crank Shapers, 12, 13, 16, 17, 20, 24 28 in. adj. st'ke
1 each Nos. 1, 2, 3, 4 Wire Feed Screw Machines.
1 each Nos. 5 to 8 Screw Machine. Power Feed.
1 each 2, 3, 4 and 6 Spindle Gang Drills.
1 Crank Planer. 12 No. 2 Lincoln Pat. Millers.
1 each Nos. 51, 52 and 53 Ferracute Presses.
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1 No. 3 1/2 in. Fowler Press. 10 Foot and Power
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12 Punching and Shearing Machines, assorted.
1 Bolt Cutter, each 1/4 to 1 in. and 1/4 to 2 in.
1 36 in. Gear Cutter.
1 each 28, 60 and 72 in. Radial Drill.
1 New Horizontal Boring Machine with facing attachment. Newark Mach. Tool Co., makers.
1 48 in. Gear Cutter. 1 Power Mortising Machine.
1 50 in. Pulley Lathe. 2 Profiling Machines.
1 10x12 in. Valley Automatic Engine.
1 36 in. Upright Drill. 3 Cam Cutters.
Send for List of New and Second-Hand Machinery.

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LOCOMOTIVES,
Passenger and Freight
CARS.
Both New and Second-Hand.
IMMEDIATE DELIVERY.
Low Prices. Easy Terms.

NEW TOOLS

For Immediate Delivery.

ENGINE LATHES, 14 to 38 in. swing.
SHAPERS, crank and Geared.
DRILL PRESSES, 20 to 40 in. swing.
PLANERS, MILLING MACHINES, TURRET,
FOX and SPEED LATHES.
PULLEY LATHES; PUNCHES, Etc.
Write for complete lists.

LODGE & DAVIS MACHINE TOOL CO.

WORKS, CINCINNATI, O.
Eastern House, 64 Courtlandt Street, New York.
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LARGE BOILER and PLATE BENDING ROLLS

13 feet between housing. Rolls 15 inches diameter, with reversible Engine. Will roll up to 1 1/2 inch plate. Built by Bement & Co., and are equal to new.

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As good as new and at 50 per cent. less than cost. One 40-Stamp Gold Mill complete, with Silvered Copper Plates. Will sell five stamps or more as desired. Eight Challenge Self Feeders.

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Two 60 H. P., one 10 H. P., and one 25 H. P.
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One Double Hoisting Engine, 40 H. P.
Two 1-inch Wire Cables, 700 and 500 feet.
Two Iron Skips and four Iron Dump Cars.

PUMPS.

Two Worthington, size 6x4x6.
One Worthington, size No. 10, 6-inch discharge.
Two Burtleigh Steam Drills, 3 1/2 in. cylinder, good as new, at less than one-half cost. Large lot of Drills, Tools, Belting, Piping and general mining supplies. Address

H. McCOY, Jr.
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Corliss Automatic Engines

ALSO

Electric Light, High-Speed and
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In first-class condition for immediate delivery

at very low prices.
Special Corliss Rolling Mill Engines for Plate Mills, etc., 30x72 in., with 30-ton wheel, 16-in. wrought shaft; also 24x48 in., with 18 ton wheel, 12-in. wrought shaft.

Corliss Engines, one each, 30x60, 32x48, 26x48, 23x36, 20x48, 18x48, 16x42, 14x48, 12x36, Buckeye Engines, one each, 11x20, 11x21, 14x24, 15x18. One pair of Woodruff & Beach Engines, automatic cut-off, 20x48. Slide-Valve Engines, 10x16, 11x24, 8x8, 11x16, 12x24, 7x14 and 14x16. Steel Boilers, assorted sizes, 50, 55, 60, 80 and 100 horse power—all insured for 80 pounds. Fan Blowers, 8 and 9 ft.; Ingersoll Rock Drills; Steam Pumps—Worthington, Blake, Cameron and Niagara; Iron Lathes, 4 inches by 5 1/2 feet; 7,500-gallon tank and smaller sizes; Buckley and Jet Condensers; Hoisting Engines, all in good working condition. Send for catalogue.

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74 Cortlandt Street, NEW YORK.

FOR SALE.

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Two New Lewis Improved Bolt Headers at low figures. Guaranteed fully.

A
Set Spoke Machinery, mostly Gleason & Deane make. Complete order; used less than four months; very low figure.

N
Boiler Feed Pump; \$40 delivered; good working order. Knowles.

S
Twenty-ton Crane; used but forty-eight hours, when was replaced by larger. Will sell one-third cost in Sharon, Pa.

F
Half ton assorted sizes, Muesett Steel in the South, owned by Nail Works, shut down and selling off.

I
New Haven 60 in. Pulley Lathe, 10 ft. bed, claimed to be as good as new, near New York.

E
Two 26 in. Laundry Extractors; new, perfect, guaranteed; \$75 each, f. o. b., New York.

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Ten new Road-Making Machines at a sacrifice, to close out stock; guaranteed, \$90, f. o. b.

D
Two three horse-power and three three horse-power Upright Steam Engines; all new and guaranteed.

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90 in. swing, 30 ft. bed.
50 in. swing, 30 ft. bed, for rolling mill forg's new.
30 in. swing, 28 ft. bed, Pond Machine Tool Co.
Shafting Lathe. A1.
32 in. swing, 12, 14, 16, 18 ft. beds. New.
28 in. swing, 12, 14, 16, 18 ft. beds. New.
25 in. swing, 10 ft., Pratt & Whitney.
24 in. swing, 12, 16, 20 and 24 ft.
21 in. swing, 10 and 12 ft. beds. New.
20 in. swing, 7 1/2 ft. bed. Ames, Good.
18 in. swing, 8 ft. bed. Several makers.
16 in. swing, 6 and 8 ft. beds. Several makers.
15 in. swing, 6 and 8 ft. beds. Several makers.
14 in. swing, 6 ft. bed. Several makers.
15, 18 & 24 in. st'ke. Crank shapers, steptoe. New.
20, 26 & 30 in. stroke. Crank shapers, steptoe. New.
10x16 in. stroke. Crank shapers. Good order.
22 in. stroke. Geared sh. pers. Good order.
20 in., 22, 24, 26, 30, 36 in. Drills. New & 2d hand.
22 in. x 5 ft. Planer.
24 in. x 4 ft., 5 ft., 6 ft. Planers.
26 in. x 6 ft. Planers. 36 in. x 12 and 14 ft. Planers.
54 in. x 2 in. x 2 1/2 ft. Planers.
62 in. x 19 ft. Planer. Bement. A1.
62 in. x 25 in. x 17 ft. Planers.
72 in. x 48 in. x 33 ft. Planer, two hd's and Aux. Post
72 in. Vertical Engine, N. Y. S. S. P. Co. A1.
11x18 horizontal slide valve Engine.
1,100 and 3,000-lb. BEMENT STEAM HAMMER.
Car-axle Lathe, Bement. 1 1/2 and 1 3/4 Bolt Cutters.
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BOTH NEW AND SECOND-HAND.
Whether you wish to BUY or SELL, WRITE US.

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A List of Leading Lumber Dealers and Manufacturers in the South.

This list of representative Southern lumber merchants and manufacturers is published for the benefit of those who desire to reach responsible houses in this branch of business in the South. Readers of the MANUFACTURERS' RECORD who have occasion to correspond with any of the firms mentioned below will confer a favor by mentioning this paper.

Yellow Pine.

I. B. Gordon & Co., Alpine, Ala.
Villa Rica Lumber Co., Anniston, Ala.
J. R. Adams & Sons, Birmingham, Ala.
Hawkins & Smith, Birmingham, Ala.
C. T. Hughes & Co., Birmingham, Ala.
Riddle & Simpson, Birmingham, Ala.
Southern Supply Co., Birmingham, Ala.
Marbury & Jones, Bozeman, Ala.
D. W. & U. Blacker, Brewton, Ala.
W. W. Weaver, Castleberry, Ala.
J. A. Dudley, Clanton, Ala.
O. A. Duke, Clanton, Ala.
L. B. Wells, Clanton, Ala.
H. C. Higman & Co., Decatur, Ala.
Dunham Lumber Co., Dunham, Ala.
Thos. Taylor, Escatawpa, Ala.
W. J. Williams & Son, Eustis, Ala.
Gadsden Lumber Co., Gadsden, Ala.
Tuscaloosa Lumber Co., Hull, Ala.
Downing & Scott, Kirkland, Ala.
Bay City Lumber Co., Mobile, Ala.
E. B. Vaughan, Mobile, Ala.
Alabama Lumber Syndicate, Montgomery, Ala.
S. B. Allen & Co., Montgomery, Ala.
W. A. Drives & Co., Montgomery, Ala.
Moore, Kirkland & Co., Montgomery, Ala.
John Crosby, Pansey, Ala.
S. A. Blasingame, Verbena, Ala.
Wagar Lumber Co., Wagar, Ala.
W. W. Wadsworth, Wadsworth, Ala.
Arkadelphia Lumber Co., Arkadelphia, Ark.
Empire Lumber Co., Ashton, Ark.
Long Bell Lumber Co., Buckner, Ark.
Cotton Belt Mill Co., Cotton Belt, Ark.
Eagle Lumber Co., Eagle Mills, Ark.
Red River Lumber Co., New Lewisville, Ark.
A. J. Neimeyer Lumber Co., Waldo, Ark.
Fordyce Lumber Co., Fordyce, Ark.
The Florida Phosphate Co., Ltd., Phosphoria, Fla.
J. S. Betts & Co., Ashburn, Ga.
Gress Lumber Co., Atlanta, Ga.
Wilson Coal & Lumber Co., Atlanta, Ga.
Donalson Lumber Co., Donalsonville, Ga.
Perkins Manufacturing Co., Augusta, Ga.
Stillwell, Millen & Co., Savannah, Ga.
E. B. Hunting & Co., Savannah, Ga.
Georgia Lumber Co., Savannah, Ga.
F. F. Putney, Hardaway, Ga.
Charles Bewick & Co., Hazlehurst, Ga.
Alderfer & Bull, Isabella, Ga.
Hogan & Winger, Kensington, Ga.
J. A. Williams, Sumner, Ga.
A. J. Duncan & Co., West Bowersville, Ga.
W. E. Mayne, Carpenter, Ky.
P. Hendrickson, Conant, Ky.
Perkins & Miller Lumber Co., Ltd., Westlake, La.
Lock-Moore & Co., Ltd., Westlake, La.
R. J. Aycock, Longstreet, La.
C. P. Brasher, Marthaville, La.
Joseph Horst, Maugansville, Md.
Elliott, Crawford & Co., Myrtle, Miss.
P. B. Myers & Son, Myrtle, Miss.
Ocean Springs Lumber Co., Ocean Springs, Miss.
B. J. Cansey, West, Miss.
Cary E. Spence, Pass Christian, Miss.
Keystone Lumber & Imp. Co., Bogue Chitto, Miss.
J. S. Blackburn, Ellisville, Miss.
W. L. Rankin & Bro., Shannon, N. C.
A. E. Rogers, Mullins, S. C.
R. F. Moss, Booker, Va.
The A. F. Withrow Lum. Co., Millboro Depot, Va.
U. B. Simpson & Son, Naruna, Va.

North Carolina Pine.

Page Lumber Co., Aberdeen, N. C.
The Greenville Land & Imp. Co., Greenville, N. C.
Guilford Lumber Mfg. Co., Greensboro, N. C.
Goldsboro Lumber Co., Goldsboro, N. C.
G. Vyne & Son, Wilkesboro, N. C.
John Hickson & Co., Lynchburg, Va.

Cypress.

Morris & England, Keo, Ark.
Cypress Lumber Co., Sherrill, Ark.
T. O. Wilson Lumber Co., Tillar, Ark.
Nuchner & Brown, Peach Orchard, Ark.
Moline Lumber Co., Helena, Ark.
J. M. Milburn & Bro., Greenway, Ark.
J. C. McCain, Greenway, Ark.
W. R. Emerson, Emerson, Fla.
J. C. Burleigh, Midland, Fla.
F. S. Bamberg, Jasper, Fla.
S. J. Temple, Temple's Mills, Fla.
J. P. Little, Sumner, Fla.
Geo. H. Barker, Waldo, Fla.
A. A. Bunnell, Raulerson, Fla.
Windemere Land & Lumber Co., Windemere, Fla.
Kelly, Cosby & Co., Jug Tavern, Ga.
Dietrich & Dopson, Lenox, Ga.
W. T. McArthur, McArthur, Ga.
W. H. Moxley & Co., Macon, Ga.

W. R. Peterson & Co., Wadley, Ga.
Lawless & Kyle, Franklin, La.
Louisiana Cypress Lumber Co., Harvey, La.
Callahan & Lewis Mfg. Co., Patterson, La.
McEwen & Murray, New Orleans, La.
Hanson & Smith, Wilmington, N. C.
J. C. Fulton, Aransas Pass, Texas.
Calcasieu Lumber Co., Austin, Texas.
M. T. Jones & Co., Childress, Texas.
J. H. Folkey, Korville, Texas.

Hardwoods.

North Alabama Lumber Mfg. Co., Bridgeport, Ala.
Bridgeport Lumber Co., Bridgeport, Ala.
Hill & Mitchell, Center Star, Ala.
W. A. Koepfel, Coaling, Ala.
Decatur Lumber Co., Decatur, Ala.
H. S. Freeman, Decatur, Ala.
Black Warrior Lumber Co., Demopolis, Ala.
Alabama Lumber & Mfg. Co., Gurley, Ala.
G. Vaughan, Hollywood, Ala.
C. G. Huffman, Hollywood, Ala.
Clifton & Hendrix, Jasper, Ala.
Elliott & Carter, Jasper, Ala.
W. M. Beatty, Austin, Ala.
J. W. Ray, Arkadelphia, Ark.
Desha Lumber Co., Arkansas City, Ark.
Batesville Lumber Co., Batesville, Ark.
Russell & Elder, Beebe, Ark.
South'n Hardwood Lumber Co., Black Rock, Ark.
E. M. Ford Land & Timber Co., Gilmore, Ark.
Kelley & Wells Lumber Co., Newport, Ark.
Cream City Lumber Co., Lamberthville, Ark.
J. M. Melfert, Lowell, Fla.
Ray & Geise, Bronwood, Ga.
Altamaha Cypress Lumber Co., Brunswick, Ga.
Montford & Mitchell, Butler, Ga.
Glasgow & Henderson, Cassville, Ga.
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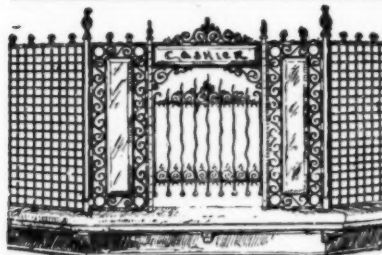
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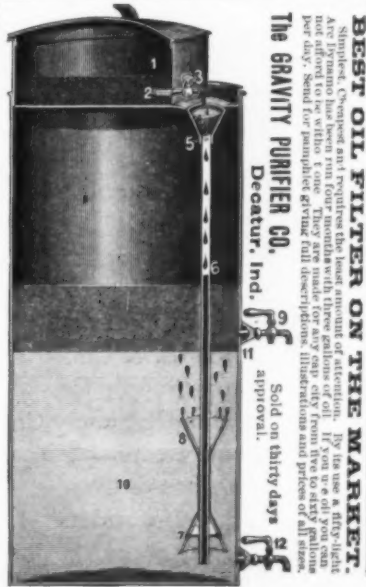
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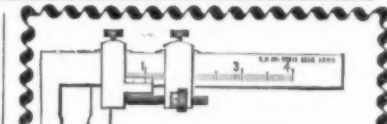


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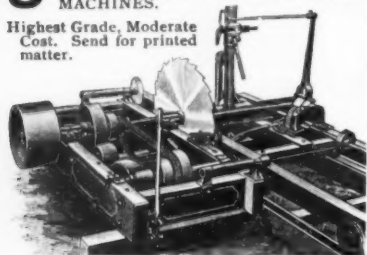
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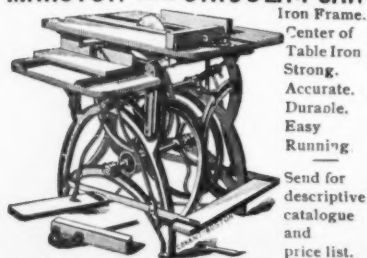
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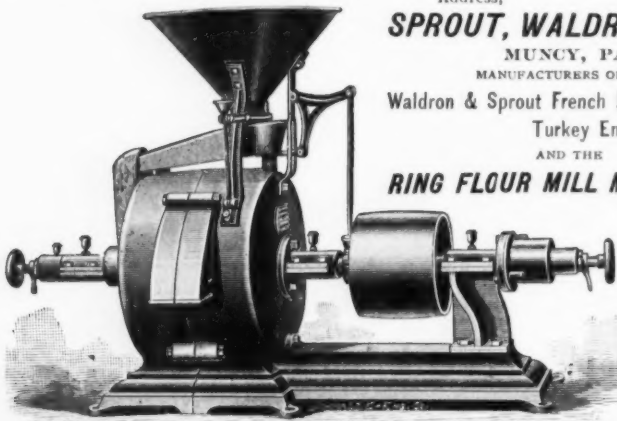
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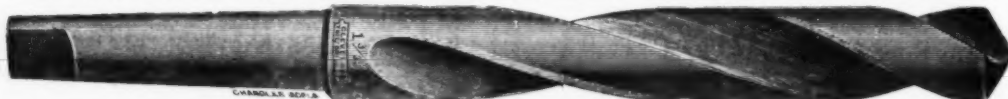
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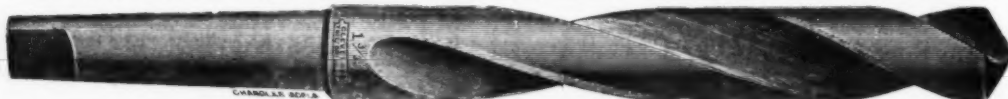


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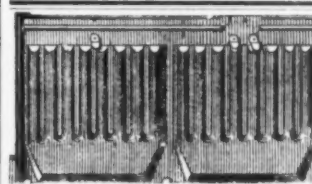
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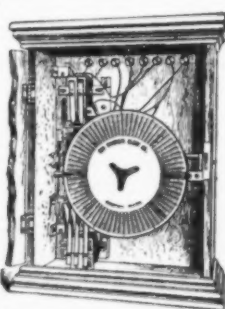
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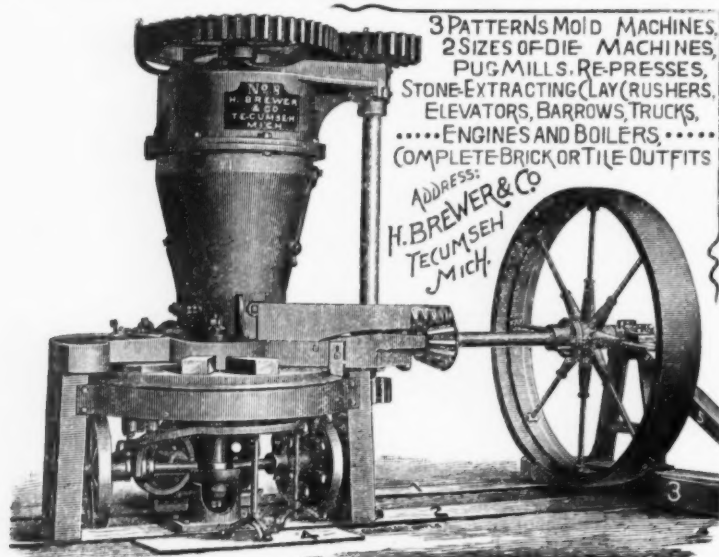
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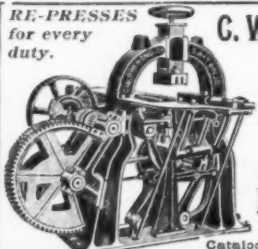


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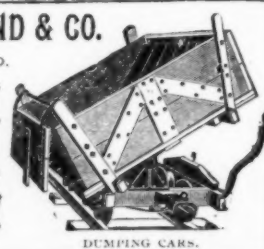


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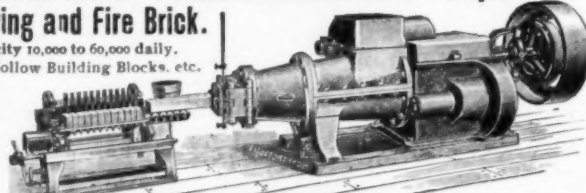
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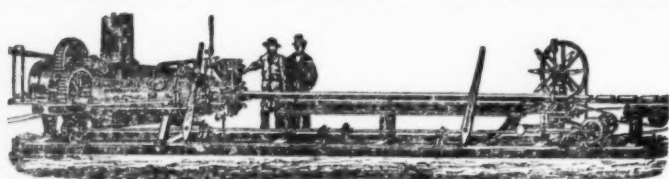
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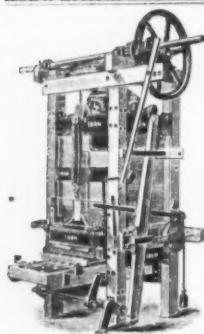
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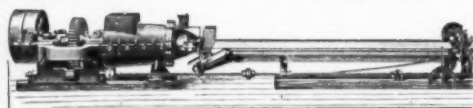
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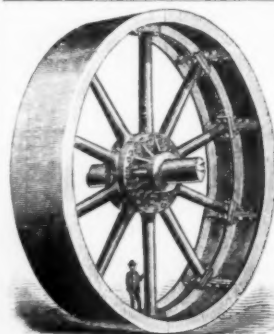


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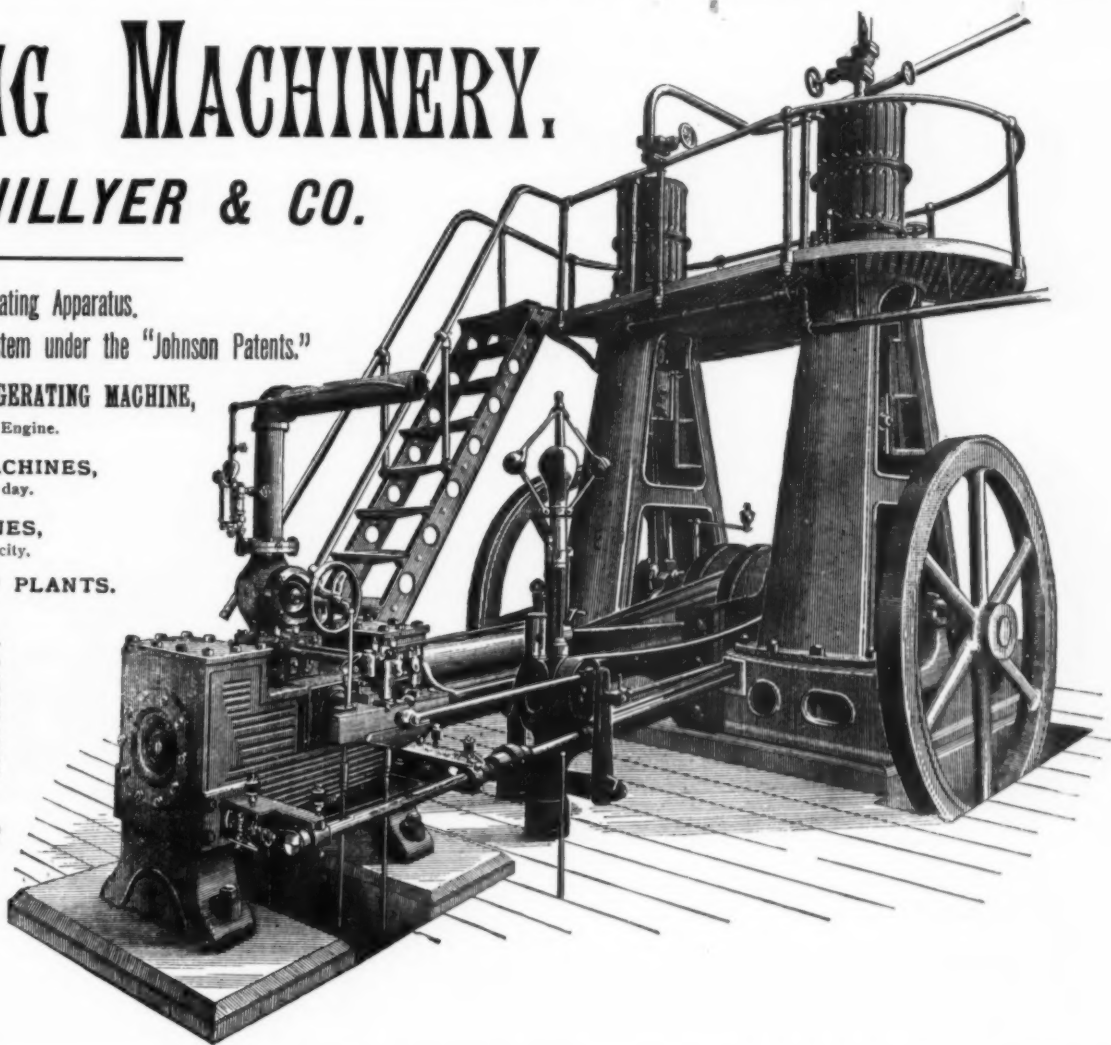
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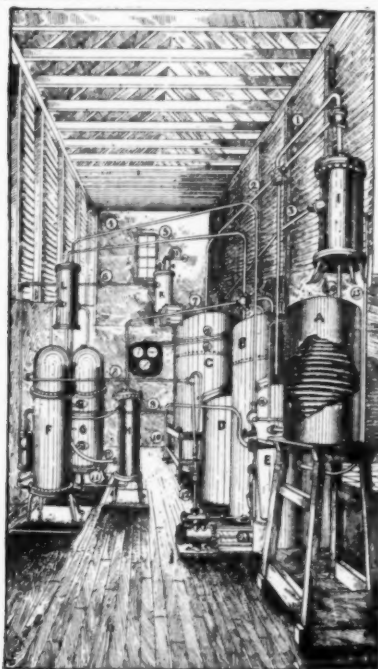
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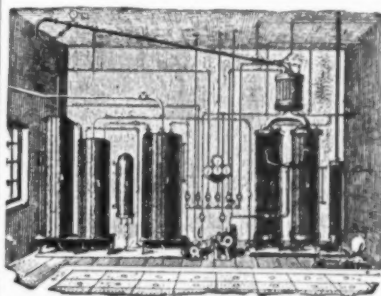
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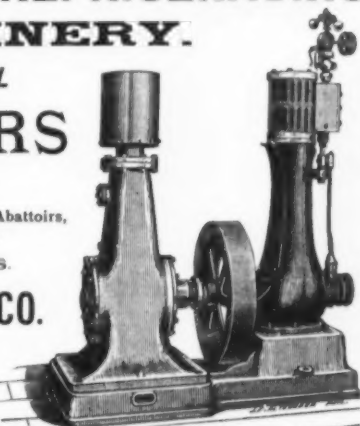
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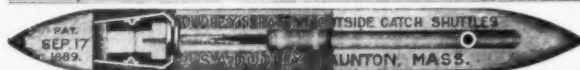
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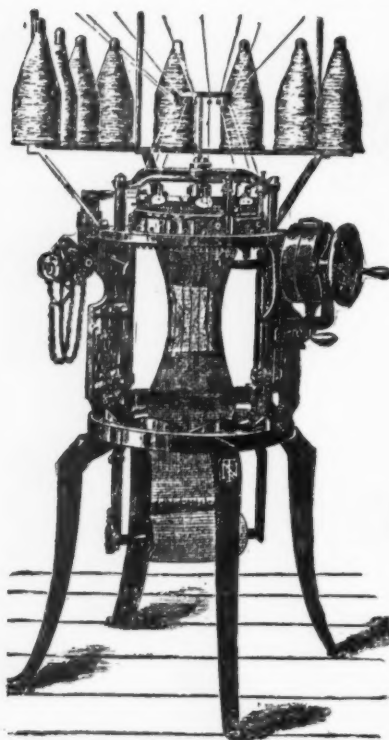
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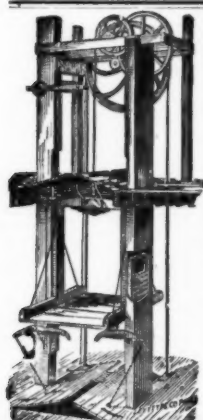
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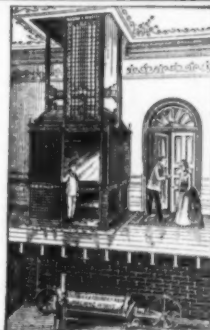
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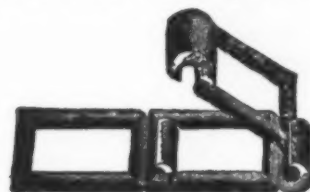
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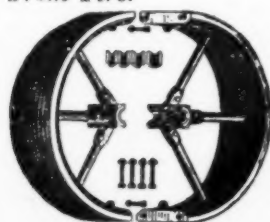
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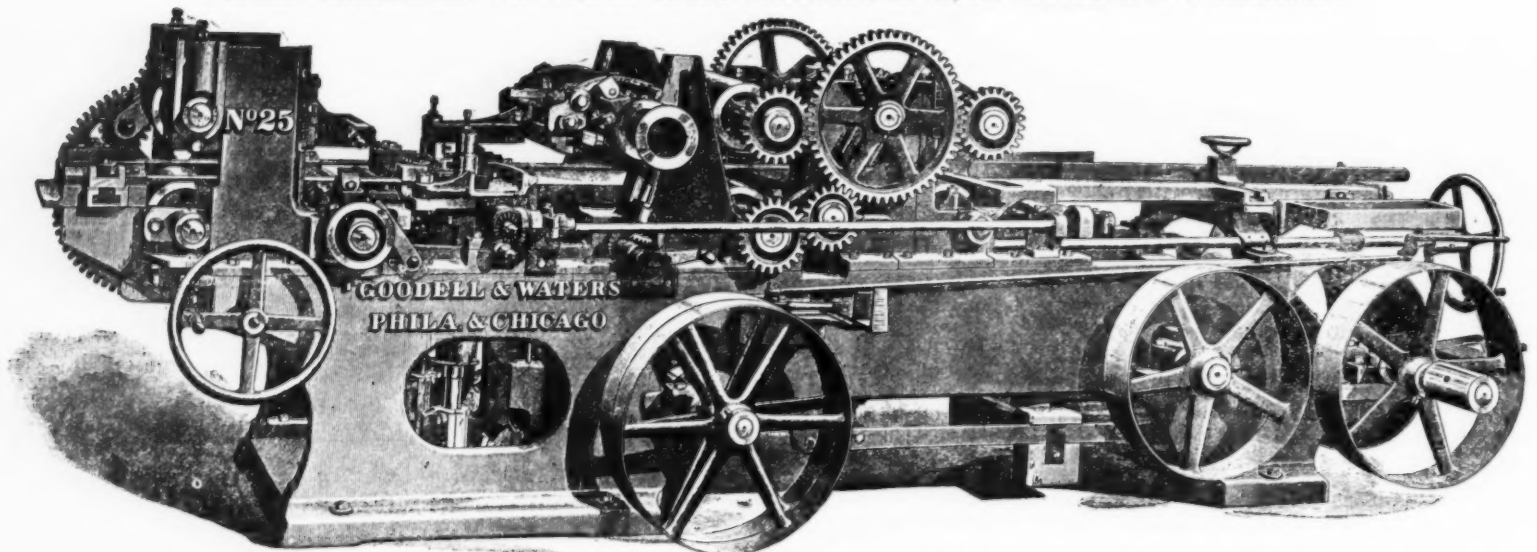
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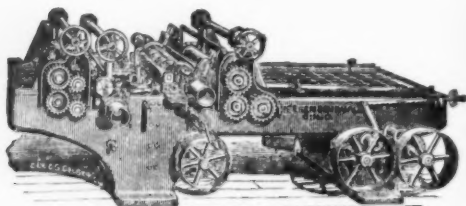
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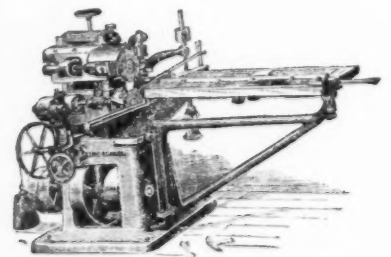
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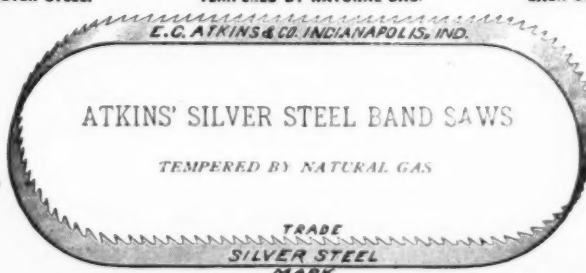


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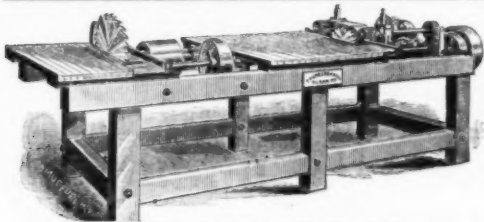
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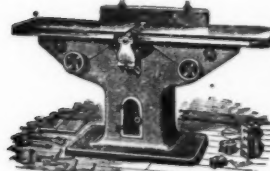
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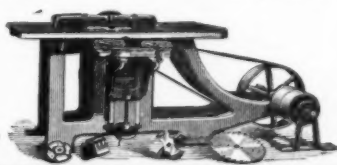
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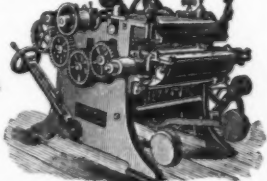
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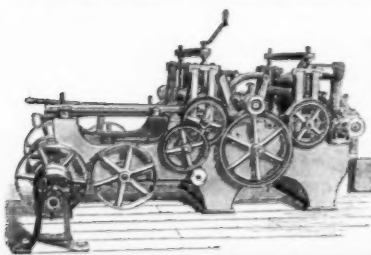
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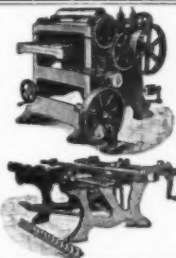
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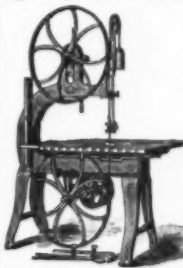
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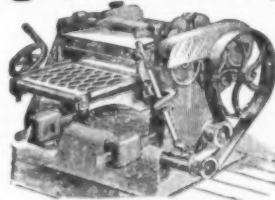
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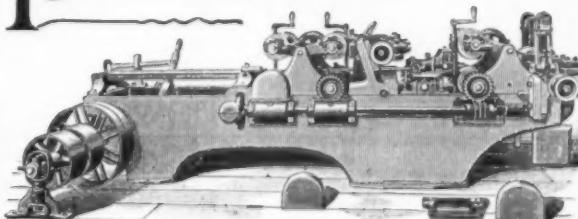
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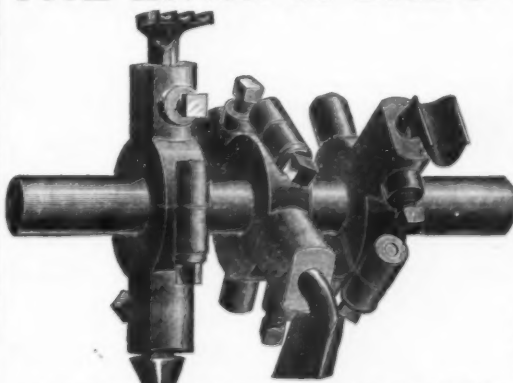
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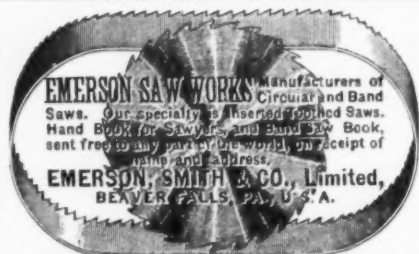
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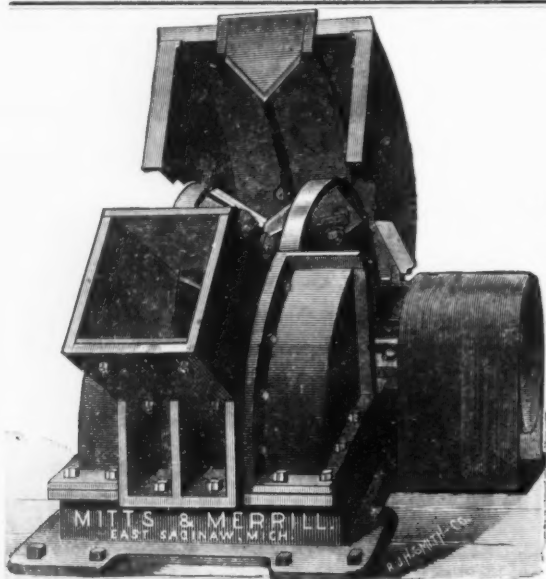
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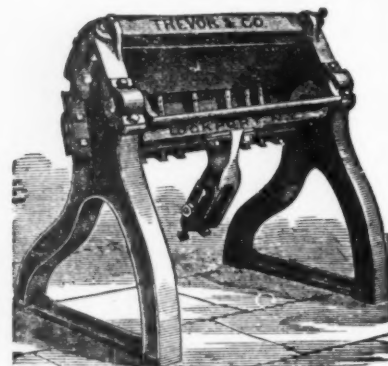
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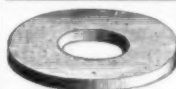
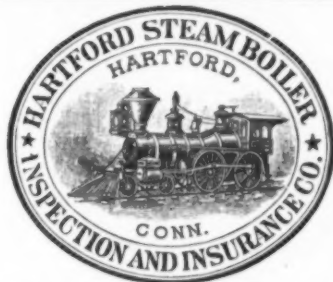


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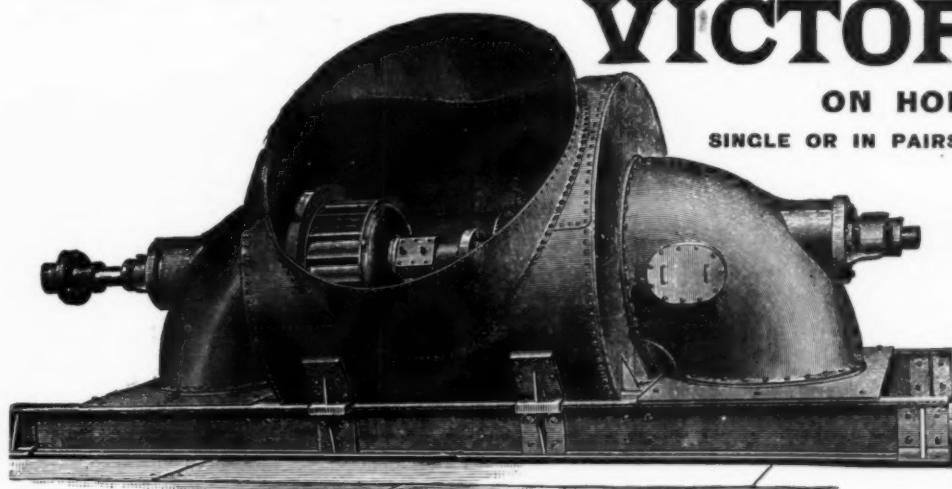
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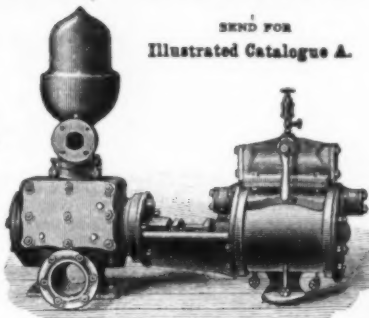
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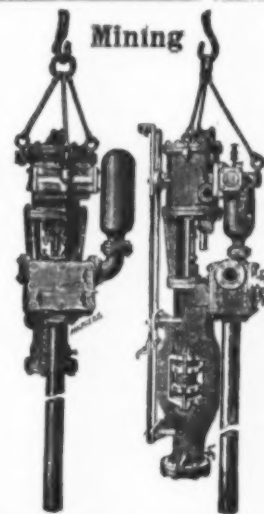
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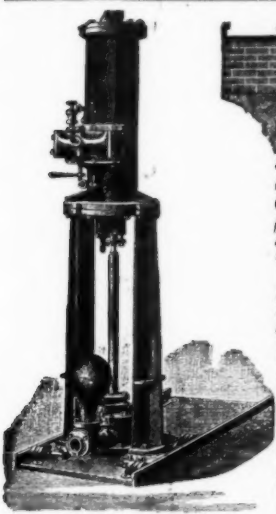
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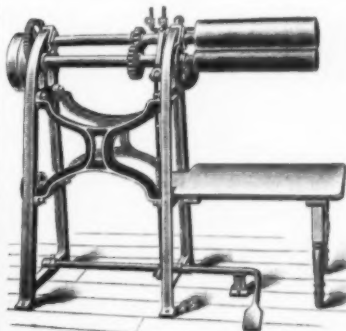
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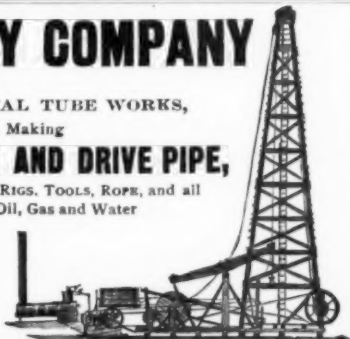
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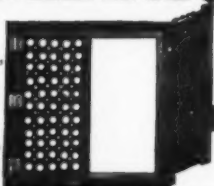
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NORTH CAROLINA,

One of the Conspicuous Successes of the Year in Town Building,
Presents the Following Record:

Population March 4, 1891, actual count, 48.

Population March 4, 1892, actual count, 348.

Gain in one year 625 per cent.

Townsite purchased November 11, 1890; act of incorporation passed by the Legislature, March 4, 1891; first lot sold at private sale, May 12, 1891. Within the first year of its existence ten miles of streets have been graded, and \$22,000 spent in public improvements. Where prior to March 4, 1891, there was only a farm settlement without pretensions to being even a village, there is to-day a thriving, busy, growing, trading and manufacturing center, with

A Large Well-Kept Hotel,
The Bank of North Wilkesboro, \$40,000 Capital,
A large Livery and Sale Stable,
Two Large Wholesale Stores,
One Hardware Store,
One Furniture Store,
Ten General Merchandise Stores,
Three Saw Mills, Sash and Blind Factories,
One Foundry and Machine Shop,
A Handsome, Well-Edited, Home Print Newspaper, The North Wilkesboro News,
One School,
Two Churches Under Way,

Two Brick Yards in operation, and a number of other enterprises practically secured.

Arrangements are about completed for a Woolen Mill.

A large iron front brick block, containing Bank Building, two Store Rooms, Opera House, and Printing Office; A graded School Building and an Iron Bridge across the Yadkin River, in the Eastern part of town, will be completed during the spring and summer.

Turnpike roads to Tennessee and Virginia are about completed; county roads leading into town are being improved and numerous good new ones built, with the intention of making this the center for all the wagon trade of this section.

A tobacco warehouse for the sale of the high grade leaf of this district will be built during the summer, so as to give a home market for the tobacco crop that will be grown this year.

Compare this record with that of any other new town you have heard of during the past dull season.

NORTH WILKESBORO,

Is 75 miles west of Winston-Salem, at the present terminus of the Northwestern North Carolina Railroad, which when ultimately completed to Bristol, Tenn., will give the shortest route between Norfolk and Cincinnati. North Wilkesboro is the most important trading point between Winston-Salem and Bristol, and is in the center of the great undeveloped mineral and timber district of Northwestern North Carolina, being by United States Postal Map on an air line 75 miles southeast of Bristol, 45 miles east of Cranberry, N. C., 40 miles north of Statesville, 45 miles northeast of Hickory, 90 miles northeast of Asheville, 45 miles southeast of Mt. Airy, and 80 miles south of the Norfolk & Western Railroad, in the valley of the Yadkin, between the Brushy Mountains on the South and the Blue Ridge on the North. Climate, healthfulness, water, drainage and location unsurpassed by any town in North Carolina.

The townsite consists of 1,088 acres, located, by the way on a farm originally owned by General John B. Gordon's grandfather. The first public auction sale of lots was held December 2, 1891, and 188 lots were sold. Purchasers have in many cases been able to resell at a handsome profit. The company has sold 50 lots at private sale since then, on many of which houses are now being erected. It is a significant fact that among the business buildings erected a large per cent. are substantial brick structures, while for architectural beauty and cost many of the residences are much superior to those usually found in a town so young.

At the second auction sale, May 11th, 1892, 35 business lots and 44 residence lots sold for \$16,490, an average of \$8.35 per front foot, which is \$2.53 per front foot (or 44 per cent.) more than the average at the sale last December, which was the best sale made in North Carolina during last year. Since the sale, a contract has been closed for the location of another large saw mill, planing mill, sash, door and blind factory combined, which will do a large shipping business. A contract is closed for the location of extract works with a capital stock of \$300,000. The plant will cost \$125,000 and will cover six acres of land. Twelve families from the North will move down. The company will erect a large electric-light plant in connection with the extract works. North Wilkesboro will get there and will not be long doing so.

Through the townsite runs a stratum of serpentine stone, 200 feet in width, and also a bed of iron ore equal in quality to that of Cranberry. The Town Company also owns 4,100 acres of mineral, granite and timber lands in Wilkes County. It is probable that the work of developing the great mineral and timber interests of the section will be commenced in a short time, and on an extensive scale.

Sites will be donated and stock subscribed to such manufacturing enterprises as may be advantageously located here.

The policy of the Company is a most liberal one in this respect, it being determined to aid all legitimate enterprises to any reasonable extent. There are 328 miles of water courses within the borders of Wilkes County, furnishing to the vicinity of North Wilkesboro a water power as great as Fall River. The climate, while not moist, is neither harsh nor dry, and is especially suitable to the spinning of fine cotton yarns, such as cannot be made in the extreme South or North. There is also a fine opportunity here for bleacheries, to the establishment of which at Southern points there is a tendency at present. As they can't go where sluggish streams, impregnated with vegetable matter, abound, the quick flowing streams of clear mountain water, so numerous about North Wilkesboro, afford everything desired. Numerous other industries will do well at North Wilkesboro, and will be most substantially encouraged to locate there.

Capitalists, Home Seekers, Health Seekers, Manufacturers of wood and iron, and many other industrial workers may well investigate North Wilkesboro's advantages.

The above-described townsite and other property belongs to the Winston Land & Improvement Co., which was chartered by act of Legislature, session of 1887; ratified March 4, 1887, chapter 82. Authorized capital \$1,000,000. Present capital stock \$125,000, all subscribed and paid up.

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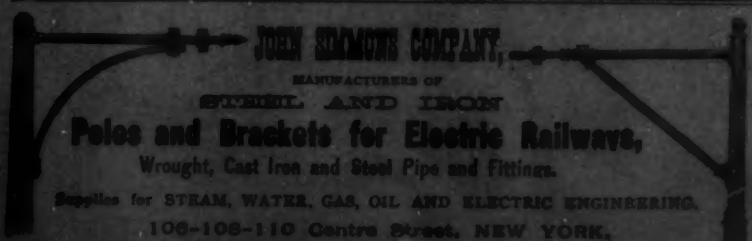
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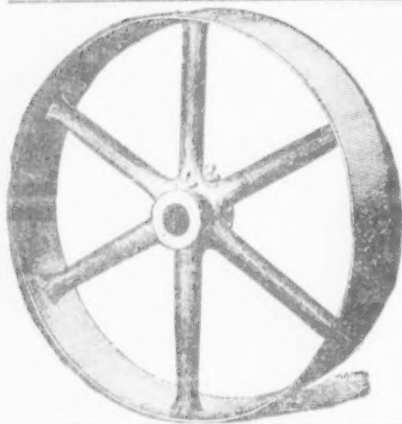
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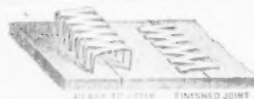
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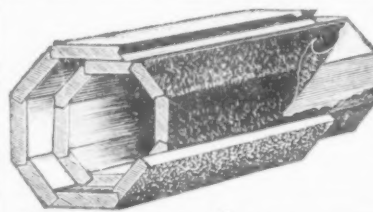
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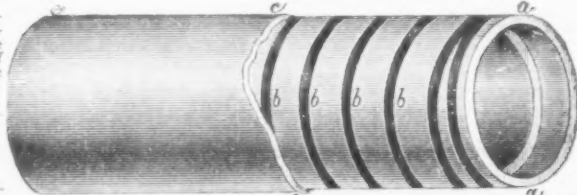
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